

IN THE UNITED STATES PATENT & TRADEMARK OFFICE

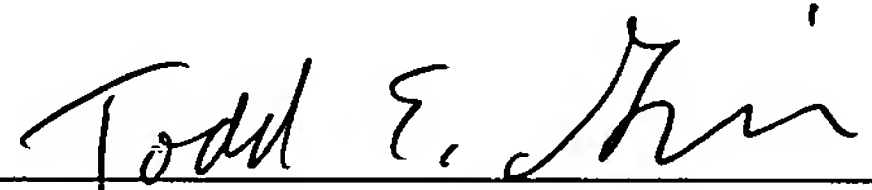
In re Application : Mats Hellstrom et al.
 Serial No. : 10/581,761
 Filed : June 5, 2006
 For : AngioGenetics Sweden AB
 Examiner :
 Attorney Docket : 102959-202
 Group Art Unit : 1653
 Confirmation No. : 6588
 Customer No. : 27267

* * * * *

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Mail Stop PCT, Commissioner for Patents, P. O. Box 1450, Alexandria, Virginia 22313-1450 on

08 APR 2008, 2008.

By



Todd E. Garabedian, Ph.D.

Registration No. 39,197

Attorney for Applicants

* * * * *

Attention: PCT Legal Staff
 Mail Stop PCT
 Commissioner for Patents
 P.O. Box 1450
 Alexandria, VA 22313-1450

RESPONSE TO NOTIFICATION OF MISSING REQUIREMENTS FILED WITH A
 PETITION UNDER 37 CFR §1.137(b)

Dear Sir:

As part of the enclosed Petition to Revive under 37 CFR §1.137(b), and with respect to the Notification of Missing Requirements Under 35 USC §371 mailed February 13, 2007, Applicants submit herewith a signed Combined Declaration and

Power of Attorney for Joint Inventors relating to the above-identified non-provisional patent application.

In addition, a copy of the sequence listing in computer-readable form (CRF) is submitted herewith as also requested in the enclosed notice. A duplicate copy of the written sequence listing as submitted to the USPTO on June 5, 2006 is enclosed. Applicants herein request the sequence listing be entered into the above-identified application.

Applicants state that with regard to the Sequence Listing, the information recorded in computer readable form is identical to the written sequence listing. Applicants submit no new matter is added herewith.

Please charge the surcharge of \$130.00 for filing the Declaration to Deposit Account No. 23-1665 as well as any other fees due with respect to this Response.

An additional copy of this Transmittal Letter is enclosed along with a copy of the Notification to File Missing Requirements.

4/11/2006 GREY1 00000046 231565 10591761
FC:1617 130.00 9A

If the Examiner believes a telephone conference would aid in the continued prosecution of this application, the Examiner is invited and encouraged to contact Applicants' representative at the telephone number listed below.

Respectfully submitted,

Mats Hellstrom et al.

Date: 08 APR 2008

By Todd E. Garabedian
Todd E. Garabedian, Ph.D.
Registration No. 39,197
Attorney for Applicants

WIGGIN AND DANA LLP
One Century Tower
New Haven, CT 06508
Telephone: (203) 498-4400
Fax: (203) 782-2889

**PETITION FOR REVIVAL OF AN INTERNATIONAL APPLICATION FOR PATENT
DESIGNATING THE U.S. ABANDONED UNINTENTIONALLY UNDER 37 CFR 1.137(b)**Docket Number
(Optional)
102959-202

First Named Inventor: Mats Hellstrom

International (PCT) Application No.: PCT/SE04/01814

U.S. Application No.: 10/581,761
(if known)

Filed: June 5, 2006

Title: Angiogenesis affecting polypeptides, proteins, and composition, and
methods of use thereofAttention: PCT Legal Staff
Mail Stop PCT
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

The above-identified application became abandoned as to the United States because the fees and documents required by 35 U.S.C. 371(c) were not filed prior to the expiration of the time set in 37 CFR 1.495(b) or (c) as applicable. The date of abandonment is the day after the date on which the 35 U.S.C. 371(c) requirements were due. See 37 CFR 1.495(h).

APPLICANT HEREBY PETITIONS FOR REVIVAL OF THIS APPLICATION

NOTE: A grantable petition requires the following items:

- (1) Petition fee
- (2) Proper reply
- (3) Terminal disclaimer with disclaimer fee which is required for all international applications having an international filing date before June 8, 1995; and
- (4) Statement that the entire delay was unintentional.

1. Petition fee☐ Small entity - fee \$ _____ (37 CFR 1.17(m)). Applicant claims small entity status.
See 37 CFR 1.27.☒ Other than small entity - fee \$ 1,500.00 (37 CFR 1.17(m))**2. Proper reply**A. The proper reply (the missing 35 U.S.C. 371(c) requirement(s)) in the form of
a Declaration and computer readable (identify type of reply):
sequence listing CD☐ has been filed previously on _____☒ is enclosed herewith.

[Page 1 of 2]

This collection of information is required by 37 CFR 1.137(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Mail Stop PCT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

04/11/2008 GFREY1 00000048 231665 10581761

02 FC:1453 1540.00 DA

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

3. Terminal disclaimer with disclaimer fee

☒ Since this international application has an international filing date on or after June 8, 1995, no terminal disclaimer is required.

☐ A terminal disclaimer (and disclaimer fee (37 CFR 1.20(d)) of \$ _____ for a small entity or \$ _____ for other than a small entity) disclaiming the required period of time is enclosed herewith (see PTO/SB/63).

4. Statement. The entire delay in filing the required reply from the due date for the required reply until the filing of a grantable petition under 37 CFR 1.137(b) was unintentional.

WARNING:

Petitioner/applicant is cautioned to avoid submitting personal information in documents filed in a patent application that may contribute to identity theft. Personal information such as social security numbers, bank account numbers, or credit card numbers (other than a check or credit card authorization form PTO-2038 submitted for payment purposes) is never required by the USPTO to support a petition or an application. If this type of personal information is included in documents submitted to the USPTO, petitioners/applicants should consider redacting such personal information from the documents before submitting them to the USPTO. Petitioner/applicant is advised that the record of a patent application is available to the public after publication of the application (unless a non-publication request in compliance with 37 CFR 1.213(a) is made in the application) or issuance of a patent. Furthermore, the record from an abandoned application may also be available to the public if the application is referenced in a published application or an issued patent (see 37 CFR 1.14). Checks and credit card authorization forms PTO-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available.

Todd E. Garabedian

Signature

08 APR 2008

Date

Todd E. Garabedian, Ph.D.

Typed or Printed Name

39,197

Registration Number, if applicable

Wiggin and Dana LLP, One Century Tower, P.O. Box 1832

Address

(203) 498-4400

Telephone Number

New Haven, CT 06508-1832

Address

Enclosures: ☒ Response

☒ Fee Payment

☐ Terminal Disclaimer

☒ Other (please identify): Declaration

Sequence listing in computer readable form (CD)

Written sequence listing

Notification of Missing Requirements

**PETITION FOR REVIVAL OF AN INTERNATIONAL APPLICATION FOR PATENT
DESIGNATING THE U.S. ABANDONED UNINTENTIONALLY UNDER 37 CFR 1.137(b)**Docket Number
(Optional)
102959-202

First Named Inventor: Mats Hellstrom

International (PCT) Application No.: PCT/SE04/01814

U.S. Application No.: 10/581,761
(if known)

Filed: June 5, 2006

Title: Angiogenesis affecting polypeptides, proteins, and composition, and
methods of use thereofAttention: PCT Legal Staff
Mail Stop PCT
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

The above-identified application became abandoned as to the United States because the fees and documents required by 35 U.S.C. 371(c) were not filed prior to the expiration of the time set in 37 CFR 1.495(b) or (c) as applicable. The date of abandonment is the day after the date on which the 35 U.S.C. 371(c) requirements were due. See 37 CFR 1.495(h).

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See 37 CFR 1.27.☒ Other than small entity - fee \$ 1,500.00 (37 CFR 1.17(m))**2. Proper reply**A. The proper reply (the missing 35 U.S.C. 371(c) requirement(s)) in the form of
a Declaration and computer readable (identify type of reply):☐ sequence listing CD☐ has been filed previously on _____☒ is enclosed herewith.

[Page 1 of 2]

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If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

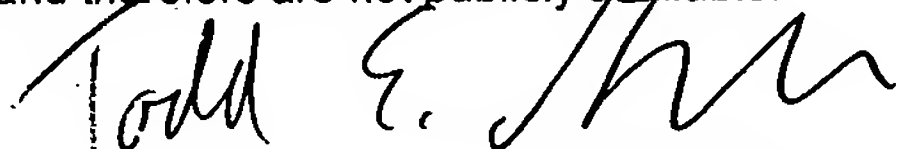
3. Terminal disclaimer with disclaimer fee

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Signature

08 APR 2008

Date

Todd E. Garabedian, Ph.D.

Typed or Printed Name

39,197

Registration Number, if applicable

Wiggin and Dana LLP, One Century Tower. P.O. Box 1832

Address

(203) 498-4400

Telephone Number

New Haven, CT 06508-1832

Address

Enclosures: ☒ Response☒ Fee Payment☐ Terminal Disclaimer☒ Other (please identify): Declaration

Sequence listing in computer readable form (CD)

Written sequence listing

Notification of Missing Requirements

Under the Paperwork Reduction Act of 1995 no persons are required to respond to a collection of information unless it displays a valid OMB control number

Effective on 12/08/2004.

Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).

FEE TRANSMITTAL
For FY 2008☐ Applicant claims small entity status. See 37 CFR 1.27**TOTAL AMOUNT OF PAYMENT** (\$)**Complete if Known**

Application Number	10/581,761
Filing Date	June 5, 2006
First Named Inventor	Mats Hellstrom
Examiner Name	
Art Unit	1653
Attorney Docket No.	102959-202

METHOD OF PAYMENT (check all that apply)
☐ Check ☐ Credit Card ☐ Money Order ☐ None ☐ Other (please identify): _____

☒ Deposit Account Deposit Account Number: 23-1665 Deposit Account Name: _____

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

☒ Charge fee(s) indicated below ☐ Charge fee(s) indicated below, except for the filing fee

☒ Charge any additional fee(s) or underpayments of fee(s) under 37 CFR 1.16 and 1.17 ☒ Credit any overpayments

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

FEE CALCULATION**1. BASIC FILING, SEARCH, AND EXAMINATION FEES**

Application Type	FILING FEES		SEARCH FEES		EXAMINATION FEES		Fees Paid (\$)
	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	
Utility	310	155	510	255	210	105	
Design	210	105	100	50	130	65	
Plant	210	105	310	155	160	80	
Reissue	310	155	510	255	620	310	
Provisional	210	105	0	0	0	0	

2. EXCESS CLAIM FEES**Fee Description**

Each claim over 20 (including Reissues)

Each independent claim over 3 (including Reissues)

Multiple dependent claims

Fee (\$)	Small Entity Fee (\$)
50	25
210	105
370	185

Total Claims	Extra Claims	Fee (\$)	Fee Paid (\$)
- 20 or HP =	x	=	

HP = highest number of total claims paid for, if greater than 20.

Indep. Claims	Extra Claims	Fee (\$)	Fee Paid (\$)
- 3 or HP =	x	=	

HP = highest number of independent claims paid for, if greater than 3.

3. APPLICATION SIZE FEE

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is \$260 (\$130 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof	Fee (\$)	Fee Paid (\$)
- 100 =	/ 50 =	(round up to a whole number) x	=	

4. OTHER FEE(S)

Non-English Specification, \$130 fee (no small entity discount)

Other (e.g., late filing surcharge): Petition Fee for Revival of an Application**Fees Paid (\$)**\$1500.00**SUBMITTED BY**

Signature		Registration No. (Attorney/Agent) 39,197	Telephone 203-498-4400
Name (Print/Type)	Todd E. Garabedian, Ph.D.		Date <u>08 APR 2008</u>

This collection of information is required by 37 CFR 1.136. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

U.S. APPLICATION NUMBER NO.	FIRST NAMED APPLICANT	ATTY. DOCKET NO.
10/581,761	Mats Hellstrom	020876419PCTUS

INTERNATIONAL APPLICATION NO.	
PCT/SE04/01814	
I.A. FILING DATE	PRIORITY DATE
12/06/2004	12/05/2003

23432
COOPER & DUNHAM, LLP
1185 AVENUE OF THE AMERICAS
NEW YORK, NY 10036

CONFIRMATION NO. 6588
371 FORMALITIES LETTER
OC000000022476482

Date Mailed: 02/13/2007

NOTIFICATION OF MISSING REQUIREMENTS UNDER 35 U.S.C. 371 IN THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US)

The following items have been submitted by the applicant or the IB to the United States Patent and Trademark Office as a Designated / Elected Office (37 CFR 1.495).

- Copy of the International Application filed on 06/05/2006
- Copy of the International Search Report filed on 06/05/2006
- Preliminary Amendments filed on 06/05/2006
- Biochemical Sequence Listing filed on 06/05/2006
- U.S. Basic National Fees filed on 06/05/2006
- Priority Documents filed on 06/05/2006
- Specification filed on 06/05/2006
- Claims filed on 06/05/2006
- Abstracts filed on 06/05/2006
- Drawings filed on 06/05/2006

The following items **MUST** be furnished within the period set forth below in order to complete the requirements for acceptance under 35 U.S.C. 371:

- Oath or declaration of the inventors, in compliance with 37 CFR 1.497(a) and (b), identifying the application by the International application number and international filing date.
- A copy of the "Sequence Listing" in computer readable form has not been submitted as required by 37 CFR 1.821(e). If the effective filing date is on or after September 8, 2000, see the final rulemaking notice published in the Federal Register at 65 FR 54604 (September 8, 2000) and 1238 OG 145 (September 19, 2000). Applicant must provide an initial computer readable form (CRF) copy of the "Sequence Listing" and a statement that the content of the sequence listing information recorded in computer readable form is identical to the written (on paper or compact disc) sequence listing and, where applicable, includes no new matter, as required by 37 CFR 1.821(e), 1.821(f), 1.821(g), 1.825(b), or 1.825(d). If applicant desires the sequence listing in the instant application to be identical with that of another application on file in the U.S. Patent and Trademark Office, such request in accordance with 37 CFR 1.821(e) may be submitted in lieu

of a new CRF.

ALL OF THE ITEMS SET FORTH ABOVE MUST BE SUBMITTED WITHIN TWO (2) MONTHS FROM THE DATE OF THIS NOTICE OR BY 32 MONTHS FROM THE PRIORITY DATE FOR THE APPLICATION, WHICHEVER IS LATER. FAILURE TO PROPERLY RESPOND WILL RESULT IN ABANDONMENT.

The time period set above may be extended by filing a petition and fee for extension of time under the provisions of 37 CFR 1.136(a).

Applicant is cautioned that correction of the above items may cause the specification and drawings page count to exceed 100 pages. If the specification and drawings exceed 100 pages, applicant will need to submit the required application size fee.

For questions regarding compliance to 37 CFR 1.821-1.825 requirements, please contact:

- For Rules Interpretation, call (571) 272-0951
- For Patent Software Program Help, call Patent EBC at 1-866-217-9197 or directly at 703-305-3028 / 703-308-6845 between the hours of 6 a.m. and 12 midnight, Monday through Friday, EST.
- Send e-mail correspondence for Patent Software Program Help @ ebc@uspto.gov

Applicant is reminded that any communications to the United States Patent and Trademark Office must be mailed to the address given in the heading and include the U.S. application no. shown above (37 CFR 1.5)

Registered users of EFS-Web may alternatively submit their reply to this notice via EFS-Web.
<https://sportal.uspto.gov/authenticate/AuthenticateUserLocalEPF.html>

For more information about EFS-Web please call the USPTO Electronic Business Center at 1-866-217-9197 or visit our website at <http://www.uspto.gov/ebc>.

If you are not using EFS-Web to submit your reply, you must include a copy of this notice.

DEBORAH D WILLIAMS

Telephone: (703) 308-9140 EXT 205

PART 2 - OFFICE COPY

U.S. APPLICATION NUMBER NO.	INTERNATIONAL APPLICATION NO.	ATTY. DOCKET NO.
10/581,761	PCT/SE04/01814	020876419PCTUS

069625-081517

Docket No: 102959-202

COMBINED DECLARATION AND POWER OF ATTORNEY FOR JOINT INVENTORS

1. As below named joint inventors, we hereby declare that our addresses and citizenship are as stated below next to our names. We believe we are the original and first inventors of the subject matter which is claimed and for which a patent is sought on the invention entitled:

**ANGIOGENESIS AFFECTING POLYPEPTIDES, PROTEINS, AND
COMPOSITIONS, AND METHODS OF USE THEREOF**

the specification of which:

☐ is attached or

☒ was filed on June 5, 2006 as Serial No. 10/581,761.

2. We hereby state that we have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment specifically referred to above.
3. We acknowledge the duty to disclose information which is material to patentability as defined in 37 C.F.R. 1.56.
4. ☒ We hereby claim foreign priority benefits under Title 35, United States Code, §119(a)-(d) or §365(b) of any foreign application(s) for patent or inventor's certificate or §365(a) of any PCT international application(s) designating at least one country other than the United States of America listed below and have also identified below any foreign application(s) for patent or inventor's certificate or any PCT international application(s) designating at least one country other than the United States of America filed by us on the same subject matter having a filing date before that of the application(s) of which priority is claimed:

Country	Application Serial No.	Date of Filing (day, mo., yr.)	Priority Claimed under 35 U.S.C. § 119	
Sweden	0303268-7	December 5, 2003	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
			<input type="checkbox"/> Yes	<input type="checkbox"/> No
			<input type="checkbox"/> Yes	<input type="checkbox"/> No

5. ☒ We hereby claim the benefit under Title 35, United States Code, § 120 of any United States application(s), § 365(c) of any PCT international application designating the United States of America, and § 119(e) of any United States provisional application(s) that is/are listed below and, insofar as the subject matter of each of the claims of this

069625-081517

U. S. Application Serial No: 10/581,761
Docket No: 102959-202
Page 2 of 3

application is not disclosed in that/those prior application(s) in the manner provided by the first paragraph of Title 35, United States Code, § 112, we acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, § 1.56 which became available between the filing date of the prior application(s) and the filing date of this application:

Application Serial No.	Filing Date	Status
60/481,741	December 5, 2003	Pending
PCT/SE2004/001814	December 6, 2004	Pending

6. We hereby declare that all statements made herein of our own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.
7. As named inventor, I hereby appoint the attorneys of Wiggin and Dana LLP, Customer Number 27267, to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.
8. Please send all correspondence to:

Docket Coordinator
Intellectual Property Law Section
Wiggin and Dana LLP
One Century Tower
P. O. Box 1832
New Haven, Connecticut 06508-1832
Telephone: (203) 498-4400

Customer No:

27267

9. ☒ [X] As named inventors, we hereby appoint the attorneys listed in paragraph 7 as our domestic representatives for the invention identified in paragraph 1 with full power of substitution and revocation, to transact all business in the U.S. Patent and Trademark Office and in the U.S. courts in connection therewith. They also designated as domestic representative on whom process or notice of proceedings affecting the application or patents issuing therefrom may be served.
- ☒ [X] We hereby authorize the U. S. attorneys named in paragraph 7 to accept and follow instruction from Albihns AB as to any actions to be taken in the U.S. Patent and Trademark Office regarding this application without direct

069625-081517

U. S. Application Serial No: 10/581,761
Docket No: 102959-202
Page 3 of 3

communication between the U.S. attorneys and us. In the event of a change in the persons from whom instructions may be taken, we will notify the U.S. attorneys.

10. Inventor Information:

Full name of first inventor: Mats HELLSTRÖM
Inventor's Signature: [Signature]
Date: 26 February 2008 Citizenship: Sweden
Residence: Ymergatan 15B, SE-753 25 Uppsala, Sweden
Post Office Address: Ymergatan 15B, SE-753 25 Uppsala, Sweden

Full name of second inventor: Elisabet WALLGARD
Inventor's Signature: [Signature]
Date: 27 FEBRUARY 2008 Citizenship: Sweden
Residence: c/o Kerstin Wallgard, Stjärnstigen 17, SE-561 35 Huskvarna, Sweden
Post Office Address: c/o Kerstin Wallgard, Stjärnstigen 17, SE-561 35 Huskvarna, Sweden

Full name of third inventor: Mattias KALÉN
Inventor's Signature: [Signature]
Date: 26 Feb 2008 Citizenship: Sweden
Residence: Larsbergsvägen 19, SE-181 38 Lidingö, Sweden
Post Office Address: Larsbergsvägen 19, SE-181 38 Lidingö, Sweden

This is the end of the listing of inventors.

075155 earlier 78063.txt
SEQUENCE LISTING

<110> Hellström, Mats
Wallgard, Elisabet
Kalén, Mattias

<120> ANGIOGENESIS-AFFECTING POLYPEPTIDES, PROTEINS, AND COMPOSITIONS, AND METHODS
OF USE THEREOF

<130> 78063

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<170> PatentIn version 3.2

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<400> 1

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<210> 2

<211> 1404

<212> DNA

<213> Murinae gen. sp.

<400> 2

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cggtgcagca gctgcccctg gtgctgctga tggtgctgtt ggcgagtgcg gcacgggcca	180
gactctactt ccgctcgggc cagacttgct accatcccat tcgcggggac cagctggctc	240
tgctggggcg caggacttat cctcggccgc atgagtacct gtccccagcg gatctcccca	300

075155 earlier 78063.txt

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gaatcaacat caagaggaaa ggtgcatggc cctccatcct gctgtccgta cagaatgtca 480
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ccgagatcta tgccaatggt cccatcagct gcgggataat ggcaacagag atgatgtcta 780
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<210> 3
<211> 306
<212> PRT
<213> Murinae gen. sp.

<400> 3

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Leu Leu Leu Ala Ser Ala Ala Arg Ala Arg Leu Tyr Phe Arg Ser Gly
20 25 30

Gln Thr Cys Tyr His Pro Ile Arg Gly Asp Gln Leu Ala Leu Leu Gly
35 40 45

Arg Arg Thr Tyr Pro Arg Pro His Glu Tyr Leu Ser Pro Ala Asp Leu
50 55 60

075155 earlier 78063.txt

Pro Lys Asn Trp Asp Trp Arg Asn Val Asn Gly Val Asn Tyr Ala Ser
65 70 75 80

Val Thr Arg Asn Gln His Ile Pro Gln Tyr Cys Gly Ser Cys Trp Ala
85 90 95

His Gly Ser Thr Ser Ala Met Ala Asp Arg Ile Asn Ile Lys Arg Lys
100 105 110

Gly Ala Trp Pro Ser Ile Leu Leu Ser Val Gln Asn Val Ile Asp Cys
115 120 125

Gly Asn Ala Gly Ser Cys Glu Gly Gly Asn Asp Leu Pro Val Trp Glu
130 135 140

Tyr Ala His Lys His Gly Ile Pro Asp Glu Thr Cys Asn Asn Tyr Gln
145 150 155 160

Ala Lys Asp Gln Asp Cys Asp Lys Phe Asn Gln Cys Gly Thr Cys Thr
165 170 175

Glu Phe Lys Glu Cys His Thr Ile Gln Asn Tyr Thr Leu Trp Arg Val
180 185 190

Gly Asp Tyr Gly Ser Leu Ser Gly Arg Glu Lys Met Met Ala Glu Ile
195 200 205

Tyr Ala Asn Gly Pro Ile Ser Cys Gly Ile Met Ala Thr Glu Met Met
210 215 220

Ser Asn Tyr Thr Gly Gly Ile Tyr Ala Glu His Gln Asp Gln Ala Val
225 230 235 240

Ile Asn His Ile Ile Ser Val Ala Gly Trp Gly Val Ser Asn Asp Gly
245 250 255

Ile Glu Tyr Trp Ile Val Arg Asn Ser Trp Gly Glu Pro Trp Gly Glu
260 265 270

Lys Gly Trp Met Arg Ile Val Thr Ser Thr Tyr Lys Gly Gly Thr Gly
275 280 285

Asp Ser Tyr Asn Leu Ala Ile Glu Ser Ala Cys Thr Phe Gly Asp Pro
290 295 300

Ile Val
305

075155 earlier 78063.txt

<210> 4
 <211> 1480
 <212> DNA
 <213> Homo sapiens

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<210> 5
 <211> 303
 <212> PRT
 <213> Homo sapiens

075155 earlier 78063.txt

<400> 5

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20 25 30

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35 40 45

Thr Tyr Pro Arg Pro His Glu Tyr Leu Ser Pro Ala Asp Leu Pro Lys
50 55 60

Ser Trp Asp Trp Arg Asn Val Asp Gly Val Asn Tyr Ala Ser Ile Thr
65 70 75 80

Arg Asn Gln His Ile Pro Gln Tyr Cys Gly Ser Cys Trp Ala His Ala
85 90 95

Ser Thr Ser Ala Met Ala Asp Arg Ile Asn Ile Lys Arg Lys Gly Ala
100 105 110

Trp Pro Ser Thr Leu Leu Ser Val Gln Asn Val Ile Asp Cys Gly Asn
115 120 125

Ala Gly Ser Cys Glu Gly Gly Asn Asp Leu Ser Val Trp Asp Tyr Ala
130 135 140

His Gln His Gly Ile Pro Asp Glu Thr Cys Asn Asn Tyr Gln Ala Lys
145 150 155 160

Asp Gln Glu Cys Asp Lys Phe Asn Gln Cys Gly Thr Cys Asn Glu Phe
165 170 175

Lys Glu Cys His Ala Ile Arg Asn Tyr Thr Leu Trp Arg Val Gly Asp
180 185 190

Tyr Gly Ser Leu Ser Gly Arg Glu Lys Met Met Ala Glu Ile Tyr Ala
195 200 205

Asn Gly Pro Ile Ser Cys Gly Ile Met Ala Thr Glu Arg Leu Ala Asn
210 215 220

Tyr Thr Gly Gly Ile Tyr Ala Glu Tyr Gln Asp Thr Thr Tyr Ile Asn
225 230 235 240

His Val Val Ser Val Ala Gly Trp Gly Ile Ser Asp Gly Thr Glu Tyr
Page 5

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245
250
255

Trp Ile Val Arg Asn Ser Trp Gly Glu Pro Trp Gly Glu Arg Gly Trp
260
265
270

Leu Arg Ile Val Thr Ser Thr Tyr Lys Asp Gly Lys Gly Ala Arg Tyr
275
280
285

Asn Leu Ala Ile Glu Glu His Cys Thr Phe Gly Asp Pro Ile Val
290
295
300

<210> 6
<211> 646
<212> DNA
<213> Murinae gen. sp.

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tttaccaaga ctcttttcggg actttcacca tcaatgaatc cagtatagct gattctccaa 180
gattccctca tagaggaatt ttaattgata catctagaca cttcctgcct gtgaagacaa 240
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<211> 1805
<212> DNA
<213> Murinae gen. sp.

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gctggtgtcg ctagtgtcgc tggccctagt ggccccggcc cgactgcaac ctgcgctatg 180
gcccttcccg cgctcggtgc agatgttccc gcggctgttg tacatctccg cggaggactt 240
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075155 earlier 78063.txt

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<210> 8
 <211> 536
 <212> PRT
 <213> Murinae gen. sp.

<400> 8

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Leu	Val	Ser	Leu	Val	Ser	Leu	Ala	Leu	Val	Ala	Pro	Ala	Arg	Leu	Gln
Page 7															

Pro Ala Leu Trp Pro Phe Pro Arg Ser Val Gln Met Phe Pro Arg Leu
35 40 45

Leu Tyr Ile Ser Ala Glu Asp Phe Ser Ile Asp His Ser Pro Asn Ser
50 55 60

Thr Ala Gly Pro Ser Cys Ser Leu Leu Gln Glu Ala Phe Arg Arg Tyr
65 70 75 80

Tyr Asn Tyr Val Phe Gly Phe Tyr Lys Arg His His Gly Pro Ala Arg
85 90 95

Phe Arg Ala Glu Pro Gln Leu Gln Lys Leu Leu Val Ser Ile Thr Leu
100 105 110

Glu Ser Glu Cys Glu Ser Phe Pro Ser Leu Ser Ser Asp Glu Thr Tyr
115 120 125

Ser Leu Leu Val Gln Glu Pro Val Ala Val Leu Lys Ala Asn Ser Val
130 135 140

Trp Gly Ala Leu Arg Gly Leu Glu Thr Phe Ser Gln Leu Val Tyr Gln
145 150 155 160

Asp Ser Phe Gly Thr Phe Thr Ile Asn Glu Ser Ser Ile Ala Asp Ser
165 170 175

Pro Arg Phe Pro His Arg Gly Ile Leu Ile Asp Thr Ser Arg His Phe
180 185 190

Leu Pro Val Lys Thr Ile Leu Lys Thr Leu Asp Ala Met Ala Phe Asn
195 200 205

Lys Phe Asn Val Leu His Trp His Ile Val Asp Asp Gln Ser Phe Pro
210 215 220

Tyr Gln Ser Thr Thr Phe Pro Glu Leu Ser Asn Lys Gly Ser Tyr Ser
225 230 235 240

Leu Ser His Val Tyr Thr Pro Asn Asp Val Arg Met Val Leu Glu Tyr
245 250 255

Ala Arg Leu Arg Gly Ile Arg Val Ile Pro Glu Phe Asp Thr Pro Gly
260 265 270

075155 earlier 78063.txt

His Thr Gln Ser Trp Gly Lys Gly Gln Lys Asn Leu Leu Thr Pro Cys
275 280 285

Tyr Asn Gln Lys Thr Lys Thr Gln Val Phe Gly Pro Val Asp Pro Thr
290 295 300

Val Asn Thr Thr Tyr Ala Phe Phe Asn Thr Phe Phe Lys Glu Ile Ser
305 310 315 320

Ser Val Phe Pro Asp Gln Phe Ile His Leu Gly Gly Asp Glu Val Glu
325 330 335

Phe Gln Cys Trp Ala Ser Asn Pro Asn Ile Gln Gly Phe Met Lys Arg
340 345 350

Lys Gly Phe Gly Ser Asp Phe Arg Arg Leu Glu Ser Phe Tyr Ile Lys
355 360 365

Lys Ile Leu Glu Ile Ile Ser Ser Leu Lys Lys Asn Ser Ile Val Trp
370 375 380

Gln Glu Val Phe Asp Asp Lys Val Glu Leu Gln Pro Gly Thr Val Val
385 390 395 400

Glu Val Trp Lys Ser Glu His Tyr Ser Tyr Glu Leu Lys Gln Val Thr
405 410 415

Gly Ser Gly Phe Pro Ala Ile Leu Ser Ala Pro Trp Tyr Leu Asp Leu
420 425 430

Ile Ser Tyr Gly Gln Asp Trp Lys Asn Tyr Tyr Lys Val Glu Pro Leu
435 440 445

Asn Phe Glu Gly Ser Glu Lys Gln Lys Gln Leu Val Ile Gly Gly Glu
450 455 460

Ala Cys Leu Trp Gly Glu Phe Val Asp Ala Thr Asn Leu Thr Pro Arg
465 470 475 480

Leu Trp Pro Arg Ala Ser Ala Val Gly Glu Arg Leu Trp Ser Pro Lys
485 490 495

Thr Val Thr Asp Leu Glu Asn Ala Tyr Lys Arg Leu Ala Val His Arg
500 505 510

Cys Arg Met Val Ser Arg Gly Ile Ala Ala Gln Pro Leu Tyr Thr Gly
515 520 525

075155 earlier 78063.txt

Tyr Cys Asn Tyr Glu Asn Lys Ile
530 535

<210> 9
<211> 1746
<212> DNA
<213> Homo sapiens

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075155 earlier 78063.txt

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<210> 10
 <211> 556
 <212> PRT
 <213> Homo sapiens

<400> 10

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 20 25 30

Val Ala Leu Val Val Gln Val Ala Glu Ala Ala Arg Ala Pro Ser Val
 35 40 45

Ser Ala Lys Pro Gly Pro Ala Leu Trp Pro Leu Pro Leu Leu Val Lys
 50 55 60

Met Thr Pro Asn Leu Leu His Leu Ala Pro Glu Asn Phe Tyr Ile Ser
 65 70 75 80

His Ser Pro Asn Ser Thr Ala Gly Pro Ser Cys Thr Leu Leu Glu Glu
 85 90 95

Ala Phe Arg Arg Tyr His Gly Tyr Ile Phe Gly Phe Tyr Lys Trp His
 100 105 110

His Glu Pro Ala Glu Phe Gln Ala Lys Thr Gln Val Gln Gln Leu Leu
 115 120 125

Val Ser Ile Thr Leu Gln Ser Glu Cys Asp Ala Phe Pro Asn Ile Ser
 130 135 140

Ser Asp Glu Ser Tyr Thr Leu Leu Val Lys Glu Pro Val Ala Val Leu
 145 150 155 160

Lys Ala Asn Arg Val Trp Gly Ala Leu Arg Gly Leu Glu Thr Phe Ser
 165 170 175

Gln Leu Val Tyr Gln Asp Ser Tyr Gly Thr Phe Thr Ile Asn Glu Ser
 180 185 190

075155 earlier 78063.txt

Thr Ile Ile Asp Ser Pro Arg Phe Ser His Arg Gly Ile Leu Ile Asp
195 200 205

Thr Ser Arg His Tyr Leu Pro Val Lys Ile Ile Leu Lys Thr Leu Asp
210 215 220

Ala Met Ala Phe Asn Lys Phe Asn Val Leu His Trp His Ile Val Asp
225 230 235 240

Asp Gln Ser Phe Pro Tyr Gln Ser Ile Thr Phe Pro Glu Leu Ser Asn
245 250 255

Lys Gly Ser Tyr Ser Leu Ser His Val Tyr Thr Pro Asn Asp Val Arg
260 265 270

Met Val Ile Glu Tyr Ala Arg Leu Arg Gly Ile Arg Val Leu Pro Glu
275 280 285

Phe Asp Thr Pro Gly His Thr Leu Ser Trp Gly Lys Gly Gln Lys Asp
290 295 300

Leu Leu Thr Pro Cys Tyr Ser Arg Gln Asn Lys Leu Asp Ser Phe Gly
305 310 315 320

Pro Ile Asn Pro Thr Leu Asn Thr Thr Tyr Ser Phe Leu Thr Thr Phe
325 330 335

Phe Lys Glu Ile Ser Glu Val Phe Pro Asp Gln Phe Ile His Leu Gly
340 345 350

Gly Asp Glu Val Glu Phe Lys Cys Trp Glu Ser Asn Pro Lys Ile Gln
355 360 365

Asp Phe Met Arg Gln Lys Gly Phe Gly Thr Asp Phe Lys Lys Leu Glu
370 375 380

Ser Phe Tyr Ile Gln Lys Val Leu Asp Ile Ile Ala Thr Ile Asn Lys
385 390 395 400

Gly Ser Ile Val Trp Gln Glu Val Phe Asp Asp Lys Ala Lys Leu Ala
405 410 415

Pro Gly Thr Ile Val Glu Val Trp Lys Asp Ser Ala Tyr Pro Glu Glu
420 425 430

Leu Ser Arg Val Thr Ala Ser Gly Phe Pro Val Ile Leu Ser Ala Pro
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075155 earlier 78063.txt

Trp Tyr Leu Asp Leu Ile Ser Tyr Gly Gln Asp Trp Arg Lys Tyr Tyr
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Lys Val Glu Pro Leu Asp Phe Gly Gly Thr Gln Lys Gln Lys Gln Leu
465 470 475 480

Phe Ile Gly Gly Glu Ala Cys Leu Trp Gly Glu Tyr Val Asp Ala Thr
485 490 495

Asn Leu Thr Pro Arg Leu Trp Pro Arg Ala Ser Ala Val Gly Glu Arg
500 505 510

Leu Trp Ser Ser Lys Asp Val Arg Asp Met Asp Asp Ala Tyr Asp Arg
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Leu Thr Arg His Arg Cys Arg Met Val Glu Arg Gly Ile Ala Ala Gln
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Pro Leu Tyr Ala Gly Tyr Cys Asn His Glu Asn Met
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<211> 676
<212> DNA
<213> Murinae gen. sp.

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ctgctgccac gggggcctgt ctccagactt gcaatccatg gagcagatta ggcgtattat 600
gcnngccaca gacgtgcctg accagggcct actgtgtgat ctctgtggt ctgaccctga 660

075155 earlier 78063.txt

caagaaatag cctcca

676

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 <211> 1369
 <212> DNA
 <213> Murinae gen. sp.

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 tgggaagaac gtgcagctga cagagaacga gatccgtggt ctgtgcctca aatcccggga 180
 gattttcctg agccagccca ttcttctgga gcttgaggcg cccctcaaga tctgtggtga 240
 catccatggc cagtactatg accttctacg gctgtttgag tatggtggct tccctccaga 300
 gagcaactac ctcttcttgg gggattatgt agatcggggc aagcagtctt tggagaccat 360
 ctgcctgttg ctggcctata agatcagata cccggagaat ttctttctac ttcgtgggaa 420
 ccatgagtgt gccagcatca accgcattta tggcttctat gatgaatgca agagaagata 480
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<210> 13
 <211> 330
 <212> PRT
 <213> Murinae gen. sp.

<400> 13

075155 earlier 78063.txt

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1 5 10 15

Leu Glu Val Gln Gly Ser Arg Pro Gly Lys Asn Val Gln Leu Thr Glu
20 25 30

Asn Glu Ile Arg Gly Leu Cys Leu Lys Ser Arg Glu Ile Phe Leu Ser
35 40 45

Gln Pro Ile Leu Leu Glu Leu Glu Ala Pro Leu Lys Ile Cys Gly Asp
50 55 60

Ile His Gly Gln Tyr Tyr Asp Leu Leu Arg Leu Phe Glu Tyr Gly Gly
65 70 75 80

Phe Pro Pro Glu Ser Asn Tyr Leu Phe Leu Gly Asp Tyr Val Asp Arg
85 90 95

Gly Lys Gln Ser Leu Glu Thr Ile Cys Leu Leu Leu Ala Tyr Lys Ile
100 105 110

Arg Tyr Pro Glu Asn Phe Phe Leu Leu Arg Gly Asn His Glu Cys Ala
115 120 125

Ser Ile Asn Arg Ile Tyr Gly Phe Tyr Asp Glu Cys Lys Arg Arg Tyr
130 135 140

Asn Ile Lys Leu Trp Lys Thr Phe Thr Asp Cys Phe Asn Cys Leu Pro
145 150 155 160

Ile Ala Ala Ile Val Asp Glu Lys Ile Phe Cys Cys His Gly Gly Leu
165 170 175

Ser Pro Asp Leu Gln Ser Met Glu Gln Ile Arg Arg Ile Met Arg Pro
180 185 190

Thr Asp Val Pro Asp Gln Gly Leu Leu Cys Asp Leu Leu Trp Ser Asp
195 200 205

Pro Asp Lys Asp Val Gln Gly Trp Gly Glu Asn Asp Arg Gly Val Ser
210 215 220

Phe Thr Phe Gly Ala Glu Val Val Ala Lys Phe Leu His Lys His Asp
225 230 235 240

Leu Asp Leu Ile Cys Arg Ala His Gln Val Val Glu Asp Gly Tyr Glu
245 250 255

075155 earlier 78063.txt

Phe Phe Ala Lys Arg Gln Leu Val Thr Leu Phe Ser Ala Pro Asn Tyr
260 265 270

Cys Gly Glu Phe Asp Asn Ala Gly Ala Met Met Ser Val Asp Glu Thr
275 280 285

Leu Met Cys Ser Phe Gln Ile Leu Lys Pro Ala Asp Lys Asn Lys Gly
290 295 300

Lys Tyr Gly Gln Phe Ser Gly Leu Asn Pro Gly Gly Arg Pro Ile Thr
305 310 315 320

Pro Pro Arg Asn Ser Ala Lys Ala Lys Lys
325 330

<210> 14
<211> 993
<212> DNA
<213> Homo sapiens

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atctgcggtg acatacacgg ccagtactac gaccttctgc gactatttga gtatggcggt 240
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ttggagacca tctgcctgct gctggcctat aagatcaagt accccgagaa cttcttcctg 360
ctccgtggga accacgagtg tgccagcatc aaccgcatct atggtttcta cgatgagtg 420
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atcgcggcca tagtggacga aaagatcttc tgctgccacg gaggcctgtc cccggacctg 540
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ctgtgtgacc tgctgtggtc tgaccctgac aaggacgtgc agggctgggg cgagaacgac 660
cgtggcgtct cttttacctt tggagccgag gtggtggcca agttcctcca caagcacgac 720
ttggacctca tctgccgagc acaccaggtg gtagaagacg gctacgagtt ctttgccaag 780
cggcagctgg tgacactttt ctcagctccc aactactgtg gcgagtttga caatgctggc 840
gccatgatga gtgtggacga gaccctcatg tgctctttcc agatcctcaa gcccgccgac 900
aagaacaagg ggaagtacgg gcagttcagt ggcctgaacc ctggaggccg acccatcacc 960
ccaccccgca attccgcaa agccaagaaa tag 993

075155 earlier 78063.txt

<210> 15
 <211> 330
 <212> PRT
 <213> Homo sapiens

<400> 15

Met Ser Asp Ser Glu Lys Leu Asn Leu Asp Ser Ile Ile Gly Arg Leu
 1 5 10 15

Leu Glu Val Gln Gly Ser Arg Pro Gly Lys Asn Val Gln Leu Thr Glu
 20 25 30

Asn Glu Ile Arg Gly Leu Cys Leu Lys Ser Arg Glu Ile Phe Leu Ser
 35 40 45

Gln Pro Ile Leu Leu Glu Leu Glu Ala Pro Leu Lys Ile Cys Gly Asp
 50 55 60

Ile His Gly Gln Tyr Tyr Asp Leu Leu Arg Leu Phe Glu Tyr Gly Gly
 65 70 75 80

Phe Pro Pro Glu Ser Asn Tyr Leu Phe Leu Gly Asp Tyr Val Asp Arg
 85 90 95

Gly Lys Gln Ser Leu Glu Thr Ile Cys Leu Leu Leu Ala Tyr Lys Ile
 100 105 110

Lys Tyr Pro Glu Asn Phe Phe Leu Leu Arg Gly Asn His Glu Cys Ala
 115 120 125

Ser Ile Asn Arg Ile Tyr Gly Phe Tyr Asp Glu Cys Lys Arg Arg Tyr
 130 135 140

Asn Ile Lys Leu Trp Lys Thr Phe Thr Asp Cys Phe Asn Cys Leu Pro
 145 150 155 160

Ile Ala Ala Ile Val Asp Glu Lys Ile Phe Cys Cys His Gly Gly Leu
 165 170 175

Ser Pro Asp Leu Gln Ser Met Glu Gln Ile Arg Arg Ile Met Arg Pro
 180 185 190

Thr Asp Val Pro Asp Gln Gly Leu Leu Cys Asp Leu Leu Trp Ser Asp
 195 200 205

Pro Asp Lys Asp Val Gln Gly Trp Gly Glu Asn Asp Arg Gly Val Ser
 210 215 220

075155 earlier 78063.txt

Phe Thr Phe Gly Ala Glu Val Val Ala Lys Phe Leu His Lys His Asp
225 230 235 240

Leu Asp Leu Ile Cys Arg Ala His Gln Val Val Glu Asp Gly Tyr Glu
245 250 255

Phe Phe Ala Lys Arg Gln Leu Val Thr Leu Phe Ser Ala Pro Asn Tyr
260 265 270

Cys Gly Glu Phe Asp Asn Ala Gly Ala Met Met Ser Val Asp Glu Thr
275 280 285

Leu Met Cys Ser Phe Gln Ile Leu Lys Pro Ala Asp Lys Asn Lys Gly
290 295 300

Lys Tyr Gly Gln Phe Ser Gly Leu Asn Pro Gly Gly Arg Pro Ile Thr
305 310 315 320

Pro Pro Arg Asn Ser Ala Lys Ala Lys Lys
325 330

<210> 16
<211> 702
<212> DNA
<213> Murinae gen. sp.

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tctcagctat cacagcctta cagcaaagcc actatctctt tggattttga aattttctct 180
gccatgccta tgactatttt aaaattgggc aaagtatatc catttcagag gggctttttc 240
tgtactgaca acagcgtgaa gtacccgtac catgacagta ccatcccgtc ccgtatactc 300
gccatactgg ggcttggctt acccattttc tctatgagta tggagaatct ctgtctgttt 360
actttaatgt cttgcattcg aattcctttg tcggcaatcc ctacatagcc accatttaca 420
aagccgtcgg agccttttgt tcggagtctc agctagtcag tccttgactg acatcgctaa 480
gtatactata ggcagtttgc ggccgcactt cttggctatc tgtaaccag actggtcaaa 540
aatcaactgc agtgatggct atattgagga ctacatatgt caagggaatg aagagaaagt 600
caaggagggc aggttgtctt tctactcggg acactcttca ttctctatgt actgcatgct 660
gtttgtcgca ctttatcttc aagccaggat gaaggagagac tg 702

<210> 17
<211> 1432
<212> DNA
<213> Murinae gen. sp.

075155 earlier 78063.txt

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<400> 17
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gcagggcggc ccaatccaaa ctgccctggt ccctgctccc gtcagtctaa gaggctcgca 180
gtcgcttggg gcggccgcca tcccgagggc ggggctctgg gaattgggta tctggaccgc 240
cgcggtctgt tcctcccgcc actcgcacca ggtggtgaca ccatccagcc ggtgaccatg 300
ttcgacaaga cgcggtgcc gtacgtggcc ctcatgtga tttgcgtgtt gctggctgga 360
ttgccttttg caattcttac ttcaaggcat acccccttcc agcgaggaat attctgtaat 420
gatgactcca tcaagtaccc ttacaaggaa gacaccatac cttatgcctt attaggtgga 480
atagtcattc cattctgtat tatcgttatg agtattggag aatctctgtc tgtttacttt 540
aatgtcttgc attcgaattc ctttgtcggc aatccctaca tagccaccat ttacaaagcc 600
gtcggagcct ttttgttcgg agtctcagct agtcagtcct tgactgacat cgctaagtat 660
actataggca gtttgcggcc gcacttcttg gctatctgta acccagactg gtcaaaaatc 720
aactgcagtg atggctatat tgaggactac atatgtcaag ggaatgaaga gaaagtcaag 780
gagggcaggt tgtctttcta ctcgggacac tcttcattct ctatgtactg catgctgttt 840
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aaacactgtc ccacctgtac atttttattg aaagacgcta tgtacaaatg tgtatgttac 1380
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<210> 18
<211> 378
<212> PRT
<213> Murinae gen. sp.

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<400> 18
Glu Ser Arg Arg Leu Arg Arg Gln Ile Gly Gly His Ser Val Ala Gly
1          5          10          15

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Arg Pro Asn Pro Asn Cys Pro Gly Pro Cys Ser Arg Gln Ser Lys Arg
Page 19

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075155 earlier 78063.txt
20 25 30

Leu Ala Val Ala Trp Gly Gly Arg His Pro Glu Gly Gly Ala Leu Gly
35 40 45

Ile Gly Tyr Leu Asp Arg Arg Gly Leu Phe Leu Pro Pro Leu Ala Pro
50 55 60

Gly Gly Asp Thr Ile Gln Pro Val Thr Met Phe Asp Lys Thr Arg Leu
65 70 75 80

Pro Tyr Val Ala Leu Asp Val Ile Cys Val Leu Leu Ala Gly Leu Pro
85 90 95

Phe Ala Ile Leu Thr Ser Arg His Thr Pro Phe Gln Arg Gly Ile Phe
100 105 110

Cys Asn Asp Asp Ser Ile Lys Tyr Pro Tyr Lys Glu Asp Thr Ile Pro
115 120 125

Tyr Ala Leu Leu Gly Gly Ile Val Ile Pro Phe Cys Ile Ile Val Met
130 135 140

Ser Ile Gly Glu Ser Leu Ser Val Tyr Phe Asn Val Leu His Ser Asn
145 150 155 160

Ser Phe Val Gly Asn Pro Tyr Ile Ala Thr Ile Tyr Lys Ala Val Gly
165 170 175

Ala Phe Leu Phe Gly Val Ser Ala Ser Gln Ser Leu Thr Asp Ile Ala
180 185 190

Lys Tyr Thr Ile Gly Ser Leu Arg Pro His Phe Leu Ala Ile Cys Asn
195 200 205

Pro Asp Trp Ser Lys Ile Asn Cys Ser Asp Gly Tyr Ile Glu Asp Tyr
210 215 220

Ile Cys Gln Gly Asn Glu Glu Lys Val Lys Glu Gly Arg Leu Ser Phe
225 230 235 240

Tyr Ser Gly His Ser Ser Phe Ser Met Tyr Cys Met Leu Phe Val Ala
245 250 255

Leu Tyr Leu Gln Ala Arg Met Lys Gly Asp Trp Ala Arg Leu Leu Arg
260 265 270

075155 earlier 78063.txt

Pro Met Leu Gln Phe Gly Leu Ile Ala Phe Ser Ile Tyr Val Gly Leu

275280285

Ser Arg Val Ser Asp Tyr Lys His His Trp Ser Asp Val Thr Val Gly

290295300

Leu Ile Gln Gly Ala Ala Met Ala Ile Leu Val Ala Leu Tyr Val Ser

305310315320

Asp Phe Phe Lys Asp Thr His Ser Tyr Lys Glu Arg Lys Glu Glu Asp

325330335

Pro His Thr Thr Leu His Glu Thr Ala Ser Ser Arg Asn Tyr Trp Ala

340345350

Leu Ala Arg Phe Lys Gly Asn Ser Trp Arg Leu Lys Ala Gly Gly Cys

355360365

Val Leu Leu Pro Ala Val Gln Thr Ile Leu

370375

<210> 19

<211> 1626

<212> DNA

<213> Homo sapiens

<400> 19

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caggccgtgc cggctgagga ggtcctgagg ctacagagct gccgcggctg gcacacgagc 180

gcctcggcac taaccgagtg ttcgcggggg ctgtgagggg agggccccgg gcgccattgc 240

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ttgacaagac gcggctgccg tacgtggccc tcgatgtgct ctgcgtgttg ctggcttcca 480

tgcctatggc tgttctaaaa ttgggccaaa tatatccatt tcagagaggc tttttctgta 540

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075155 earlier 78063.txt

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accaaa 1626

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<210> 20
 <211> 378
 <212> PRT
 <213> Homo sapiens

<400> 20

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Gly Thr Asn Arg Val Phe Ala Gly Ala Val Arg Gly Gly Pro Arg Ala
 20 25 30

Pro Leu Leu Ala Val Gly Ala Pro Pro Gly Leu Ser Pro Pro Ser Ala
 35 40 45

Ala Leu Leu Leu Arg Leu Gly Gly Ala Val Ala Arg Gly Arg Arg Gln
 50 55 60

Pro Arg Pro Gly Leu Glu Asn Gln Gly Pro Arg Pro Pro Ser Arg Ser
 65 70 75 80

Ser Val His Arg Pro Cys Arg Ala Ala Arg Ala Glu Thr Met Phe Asp
 85 90 95

Lys Thr Arg Leu Pro Tyr Val Ala Leu Asp Val Leu Cys Val Leu Leu
 100 105 110

075155 earlier 78063.txt

Ala Ser Met Pro Met Ala Val Leu Lys Leu Gly Gln Ile Tyr Pro Phe
115 120 125

Gln Arg Gly Phe Phe Cys Lys Asp Asn Ser Ile Asn Tyr Pro Tyr His
130 135 140

Asp Ser Thr Val Thr Ser Thr Val Leu Ile Leu Val Gly Val Gly Leu
145 150 155 160

Pro Ile Ser Ser Ile Ile Leu Gly Glu Thr Leu Ser Val Tyr Cys Asn
165 170 175

Leu Leu His Ser Asn Ser Phe Ile Arg Asn Asn Tyr Ile Ala Thr Ile
180 185 190

Tyr Lys Ala Ile Gly Thr Phe Leu Phe Gly Ala Ala Ala Ser Gln Ser
195 200 205

Leu Thr Asp Ile Ala Lys Tyr Ser Ile Gly Arg Leu Arg Pro His Phe
210 215 220

Leu Asp Val Cys Asp Pro Asp Trp Ser Lys Ile Asn Cys Ser Asp Gly
225 230 235 240

Tyr Ile Glu Tyr Tyr Ile Cys Arg Gly Asn Ala Glu Arg Val Lys Glu
245 250 255

Gly Arg Leu Ser Phe Tyr Ser Gly His Ser Ser Phe Ser Met Tyr Cys
260 265 270

Met Leu Phe Val Ala Leu Tyr Leu Gln Ala Arg Met Lys Gly Asp Trp
275 280 285

Ala Arg Leu Leu Arg Pro Thr Leu Gln Phe Gly Leu Val Ala Val Ser
290 295 300

Ile Tyr Val Gly Leu Ser Arg Val Ser Asp Tyr Lys His His Trp Ser
305 310 315 320

Asp Val Leu Thr Gly Leu Ile Gln Gly Ala Leu Val Ala Ile Leu Val
325 330 335

Ala Val Tyr Val Ser Asp Phe Phe Lys Glu Arg Thr Ser Phe Lys Glu
340 345 350

Arg Lys Glu Glu Asp Ser His Thr Thr Leu His Glu Thr Pro Thr Thr
355 360 365

075155 earlier 78063.txt

Gly Asn His Tyr Pro Ser Asn His Gln Pro
370 375

<210> 21
<211> 816
<212> DNA
<213> Homo sapiens

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cgagggaatg cagaaagagt taaggaaggc aggttgtcct tctattcagg ccactcttcg 480
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tgggcaagac tcttacgccc cacactgcaa tttggtcctg ttgccgtatc catttatgtg 600
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cagggagctc tggttgcaat attagttgct gtatatgtat cggatttctt caaagaaaga 720
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<210> 22
<211> 271
<212> PRT
<213> Homo sapiens

<400> 22
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20 25 30
Lys Tyr Pro Tyr Lys Glu Asp Thr Ile Pro Tyr Ala Leu Leu Gly Gly
35 40 45
Ile Ile Ile Pro Phe Ser Ile Ile Val Ile Ile Leu Gly Glu Thr Leu
50 55 60

075155 earlier 78063.txt

Ser Val Tyr Cys Asn Leu Leu His Ser Asn Ser Phe Ile Arg Asn Asn
65 70 75 80

Tyr Ile Ala Thr Ile Tyr Lys Ala Ile Gly Thr Phe Leu Phe Gly Ala
85 90 95

Ala Ala Ser Gln Ser Leu Thr Asp Ile Ala Lys Tyr Ser Ile Gly Arg
100 105 110

Leu Arg Pro His Phe Leu Asp Val Cys Asp Pro Asp Trp Ser Lys Ile
115 120 125

Asn Cys Ser Asp Gly Tyr Ile Glu Tyr Tyr Ile Cys Arg Gly Asn Ala
130 135 140

Glu Arg Val Lys Glu Gly Arg Leu Ser Phe Tyr Ser Gly His Ser Ser
145 150 155 160

Phe Ser Met Tyr Cys Met Leu Phe Val Ala Leu Tyr Leu Gln Ala Arg
165 170 175

Met Lys Gly Asp Trp Ala Arg Leu Leu Arg Pro Thr Leu Gln Phe Gly
180 185 190

Leu Val Ala Val Ser Ile Tyr Val Gly Leu Ser Arg Val Ser Asp Tyr
195 200 205

Lys His His Trp Ser Asp Val Leu Thr Gly Leu Ile Gln Gly Ala Leu
210 215 220

Val Ala Ile Leu Val Ala Val Tyr Val Ser Asp Phe Phe Lys Glu Arg
225 230 235 240

Thr Ser Phe Lys Glu Arg Lys Glu Glu Asp Ser His Thr Thr Leu His
245 250 255

Glu Thr Pro Thr Thr Gly Asn His Tyr Pro Ser Asn His Gln Pro
260 265 270

<210> 23
<211> 840
<212> DNA
<213> Murinae gen. sp.

<220>
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<222> (474)..(474)
<223> n is a, c, g, or t

075155 earlier 78063.txt

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aggatcagaa	atattgaaga	atctaagcca	ggttgccatg	aagtgtcgct	gcagcagtat	540
gcacttcttg	gtagcagaat	ggaatgaacc	atctatcaac	ttctacaaaa	gaagaggtgc	600
ttcggatctg	tccagtgaag	agggatggga	ggctcttcaa	gattgacaag	agtacttgct	660
aaaaatggca	gcagaggagt	gaggcgtgcc	gggtgtagaac	atgacaacct	ccattgtgct	720
ttagaataat	tctcagcttc	ccttgctttc	tatcttggtg	tgtaggtgaa	ataatagagc	780
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<210> 24

<211> 1052

<212> DNA

<213> Murinae gen. sp.

<400> 24

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cctcctgctg	ttcaagtaca	ggggcctggt	gcgcaaaggg	aagaaaagca	aaagacgaaa	180
atggctaaat	ttaagatccg	tccagccact	gcctctgact	gcagtgacat	cctgctgactg	240
atcaaggaac	tggctaaata	tgaatacatg	gaagatcaag	tcattttaac	tgagaaagat	300
ctccaagagg	atggcttttg	agaacacccc	ttctaccact	gcctgggtgc	agaagtgcct	360
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tatgacccat	ggattggcaa	gttgctgtat	cttgaagact	tcttcgtgat	gagtgattac	480
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cgctgcagca	gtatgcactt	cttggttagca	gaatggaatg	aaccatctat	caacttctac	600
aaaagaagag	gtgcttcgga	tctgtccagt	gaagagggat	ggaggctctt	caagattgac	660
aaagagtact	tgctaaaaat	ggcagcagag	gagtgaggcg	tgccgggtgta	gacaatgaca	720
acctccattg	tgcttttagaa	taattctcag	cttcccttgc	tttctatctt	gtgtgtagtg	780
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075155 earlier 78063.txt

aaattcggtc tgttttaaagt ggcagtcacg tatgtgggtt ggaggcagaa ttcttgaaca 900
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ttgtgagtca tttaaagtgt tacaatgtac acactgggtac ttagagtttc tgttttgatt 1020
cttttttttt taaataaact actctttgat tt 1052

<210> 25
<211> 171
<212> PRT
<213> Murinae gen. sp.

<400> 25

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20 25 30

Gln Val Ile Leu Thr Glu Lys Asp Leu Gln Glu Asp Gly Phe Gly Glu
35 40 45

His Pro Phe Tyr His Cys Leu Val Ala Glu Val Pro Lys Glu His Trp
50 55 60

Thr Pro Glu Gly His Ser Ile Val Gly Phe Ala Met Tyr Tyr Phe Thr
65 70 75 80

Tyr Asp Pro Trp Ile Gly Lys Leu Leu Tyr Leu Glu Asp Phe Phe Val
85 90 95

Met Ser Asp Tyr Arg Gly Phe Gly Ile Gly Ser Glu Ile Leu Lys Asn
100 105 110

Leu Ser Gln Val Ala Met Lys Cys Arg Cys Ser Ser Met His Phe Leu
115 120 125

Val Ala Glu Trp Asn Glu Pro Ser Ile Asn Phe Tyr Lys Arg Arg Gly
130 135 140

Ala Ser Asp Leu Ser Ser Glu Glu Gly Trp Arg Leu Phe Lys Ile Asp
145 150 155 160

Lys Glu Tyr Leu Leu Lys Met Ala Ala Glu Glu
165 170

<210> 26
<211> 1111

075155 earlier 78063.txt

<212> DNA

<213> Homo sapiens

<400> 26

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ctcctactgt tcaagtacag gggcctggtc cgcaaaggga agaaaagcaa aagacgaaaa	180
tggctaaatt cgtgatccgc ccagccactg ccgcccactg cagtgcata ctgcggctga	240
tcaaggagct ggctaaatat gaatacatgg aagaacaagt aatcttaact gaaaaagatc	300
tgctagaaga tggttttgga gagcaccctt tttaccactg cctgggttgca gaagtgccga	360
aagagcactg gactccggaa ggtaaccctt cgccctttcc agaagccaga gagaccaaca	420
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gggcagaatg gaatgaacca tccatcaact tctataaaag aagaggtgct tctgatctgt	660
ccagtgaaga gggttggaga ctgttcaaga tcgacaagga gtacttgcta aaaatggcaa	720
cagaggagtg aggagtgtg ctgtagatga caacctccat tctatttttag aataaattcc	780
caacttctct tgcttttctat gctgtttgta gtgaaataat agaattgagca cccattccaa	840
agctttatta ccagtggcgt tgttgcatgt ttgaaatgag gtctgtttta agtggcaatc	900
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aatgtacaca ctggtactta gagtttctgt ttgattcttt ttttaataaac tactctttga	1080
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<210> 27

<211> 190

<212> PRT

<213> Homo sapiens

<400> 27

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Glu	Glu	Lys	Gln	Lys	Thr	Lys	Met	Ala	Lys	Phe	Val	Ile	Arg	Pro	Ala
			20					25					30		

Thr	Ala	Ala	Asp	Cys	Ser	Asp	Ile	Leu	Arg	Leu	Ile	Lys	Glu	Leu	Ala
		35					40					45			

Lys	Tyr	Glu	Tyr	Met	Glu	Glu	Gln	Val	Ile	Leu	Thr	Glu	Lys	Asp	Leu
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

50 075155 earlier 78063.txt 55 60

Leu Glu Asp Gly Phe Gly Glu His Pro Phe Tyr His Cys Leu Val Ala
65 70 75 80

Glu Val Pro Lys Glu His Trp Thr Pro Glu Gly Asn Pro Ser Pro Phe
85 90 95

Pro Glu Ala Arg Glu Thr Asn Ile Val Gly Phe Ala Met Tyr Tyr Phe
100 105 110

Thr Tyr Asp Pro Trp Ile Gly Lys Leu Leu Tyr Leu Glu Asp Phe Phe
115 120 125

Val Met Ser Asp Tyr Arg Gly Thr Ile Glu Leu Trp His Arg Ile Arg
130 135 140

Asn Ser Glu Glu Ser Lys Pro Gly Cys Asn Glu Val Ser Leu Ala Ala
145 150 155 160

Cys Thr Ser Trp Ala Glu Trp Asn Glu Pro Ser Ile Asn Phe Tyr Lys
165 170 175

Arg Arg Gly Ala Ser Asp Leu Ser Ser Glu Glu Gly Trp Arg
180 185 190

<210> 28
<211> 745
<212> DNA
<213> Murinae gen. sp.

<400> 28
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agaggagtgt ccttcacatt tggtgcagaa gtggttgcaa aatttctcca taagcatgat 180
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gagaaaaaga agcccaacgc cacgagacct gtcacaccac cacgggggtat gatcacaag 420
caagcaaaga aatagatgtc acttgacact gcctggttgg gacttgtaac atagcgttca 480
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cattctcaag agagcatttg gttctgaacc tctgttcctt ttgtggacag ctctgatgat 660

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 tttttttagt ttagtataag tcatg 745

<210> 29
 <211> 2127
 <212> DNA
 <213> Murinae gen. sp.

<400> 29
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 tccaggagaa cgagatccga ggactctgcc tgaagtctcg ggagatcttc ctcagtcagc 180
 ctatcctttt agaacttgaa gcaccactca agatatgtgg tgacatccac gggcagtact 240
 atgatttgct ccgtctgttt gaatacgggtg gctttcctcc agagagcaac tatttgtttc 300
 tcggggacta tgtggacagg ggcaagcagt ccctggagac aatctgcctc ttgctggcct 360
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 tcaataggat ctacggattt tatgatgagt gtaaaagaag atacaacatt aagctgtgga 480
 aaacgttcac agactgtttt aactgcttgc cgatagcagc catcgtggac gagaagatat 540
 tctgctgtca tggaggttta tcaccagatc ttcaatctat ggagcagatt cggcgaatta 600
 tgagaccaac tgatgtacca gatcaaggtc ttctttgtga tcttttgtgg tctgaccccg 660
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 tggttgaaga tggctatgag ttttttgcaa agaggcagtt agtcactctg ttttctgcac 840
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 gtaaatgcct gttttcttta ggatataaag agagccttag agtgcgtgag tctctacatg 1380
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075155 earlier 78063.txt

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gaggctgcgt gcacaggccg cctccctccg tggggcctca gaagcagggtt attttaacta 1740
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aacttgccgt ccaccgggtt atacagaact cacagtatct atgacttttt taaactacga 2040
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ttcagactta ttaaatagcaa gcttggtt 2127
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<210> 30
 <211> 323
 <212> PRT
 <213> Murinae gen. sp.

<400> 30

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          20          25          30

Asn Glu Ile Arg Gly Leu Cys Leu Lys Ser Arg Glu Ile Phe Leu Ser
          35          40          45

Gln Pro Ile Leu Leu Glu Leu Glu Ala Pro Leu Lys Ile Cys Gly Asp
          50          55          60

Ile His Gly Gln Tyr Tyr Asp Leu Leu Arg Leu Phe Glu Tyr Gly Gly
65          70          75          80

Phe Pro Pro Glu Ser Asn Tyr Leu Phe Leu Gly Asp Tyr Val Asp Arg
          85          90          95

Gly Lys Gln Ser Leu Glu Thr Ile Cys Leu Leu Leu Ala Tyr Lys Ile
          100          105          110

Lys Tyr Pro Glu Asn Phe Phe Leu Leu Arg Gly Asn His Glu Cys Ala
          115          120          125

Ser Ile Asn Arg Ile Tyr Gly Phe Tyr Asp Glu Cys Lys Arg Arg Tyr
          130          135          140
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075155 earlier 78063.txt

Asn Ile Lys Leu Trp Lys Thr Phe Thr Asp Cys Phe Asn Cys Leu Pro
145 150 155 160

Ile Ala Ala Ile Val Asp Glu Lys Ile Phe Cys Cys His Gly Gly Leu
165 170 175

Ser Pro Asp Leu Gln Ser Met Glu Gln Ile Arg Arg Ile Met Arg Pro
180 185 190

Thr Asp Val Pro Asp Gln Gly Leu Leu Cys Asp Leu Leu Trp Ser Asp
195 200 205

Pro Asp Lys Asp Val Leu Gly Trp Gly Glu Asn Asp Arg Gly Val Ser
210 215 220

Phe Thr Phe Gly Ala Glu Val Val Ala Lys Phe Leu His Lys His Asp
225 230 235 240

Leu Asp Leu Ile Cys Arg Ala His Gln Val Val Glu Asp Gly Tyr Glu
245 250 255

Phe Phe Ala Lys Arg Gln Leu Val Thr Leu Phe Ser Ala Pro Asn Tyr
260 265 270

Cys Gly Glu Phe Asp Asn Ala Gly Ala Met Met Ser Val Asp Glu Thr
275 280 285

Leu Met Cys Ser Phe Gln Ile Leu Lys Pro Ala Glu Lys Lys Lys Pro
290 295 300

Asn Ala Thr Arg Pro Val Thr Pro Pro Arg Gly Met Ile Thr Lys Gln
305 310 315 320

Ala Lys Lys

<210> 31
<211> 993
<212> DNA
<213> Homo sapiens

<400> 31
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aaatcccggg agatttttct gagccagccc attcttctgg agctggaggc acccctcaag 180
atctgcggtg acatacacgg ccagtactac gaccttctgc gactatttga gtatggcggt 240

075155 earlier 78063.txt

ttccctcccg agagcaacta cctctttctg ggggactatg tggacagggg caagcagtcc	300
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<210> 32
 <211> 330
 <212> PRT
 <213> Homo sapiens
 <400> 32

Met Ser Asp Ser Glu Lys Leu Asn Leu Asp Ser Ile Ile Gly Arg Leu	1	5	10	15
Leu Glu Val Gln Gly Ser Arg Pro Gly Lys Asn Val Gln Leu Thr Glu	20	25	30	
Asn Glu Ile Arg Gly Leu Cys Leu Lys Ser Arg Glu Ile Phe Leu Ser	35	40	45	
Gln Pro Ile Leu Leu Glu Leu Glu Ala Pro Leu Lys Ile Cys Gly Asp	50	55	60	
Ile His Gly Gln Tyr Tyr Asp Leu Leu Arg Leu Phe Glu Tyr Gly Gly	65	70	75	80
Phe Pro Pro Glu Ser Asn Tyr Leu Phe Leu Gly Asp Tyr Val Asp Arg	85	90	95	
Gly Lys Gln Ser Leu Glu Thr Ile Cys Leu Leu Leu Ala Tyr Lys Ile	100	105	110	
Lys Tyr Pro Glu Asn Phe Phe Leu Leu Arg Gly Asn His Glu Cys Ala				

075155 earlier 78063.txt
115 120 125

Ser Ile Asn Arg Ile Tyr Gly Phe Tyr Asp Glu Cys Lys Arg Arg Tyr
130 135 140

Asn Ile Lys Leu Trp Lys Thr Phe Thr Asp Cys Phe Asn Cys Leu Pro
145 150 155 160

Ile Ala Ala Ile Val Asp Glu Lys Ile Phe Cys Cys His Gly Gly Leu
165 170 175

Ser Pro Asp Leu Gln Ser Met Glu Gln Ile Arg Arg Ile Met Arg Pro
180 185 190

Thr Asp Val Pro Asp Gln Gly Leu Leu Cys Asp Leu Leu Trp Ser Asp
195 200 205

Pro Asp Lys Asp Val Gln Gly Trp Gly Glu Asn Asp Arg Gly Val Ser
210 215 220

Phe Thr Phe Gly Ala Glu Val Val Ala Lys Phe Leu His Lys His Asp
225 230 235 240

Leu Asp Leu Ile Cys Arg Ala His Gln Val Val Glu Asp Gly Tyr Glu
245 250 255

Phe Phe Ala Lys Arg Gln Leu Val Thr Leu Phe Ser Ala Pro Asn Tyr
260 265 270

Cys Gly Glu Phe Asp Asn Ala Gly Ala Met Met Ser Val Asp Glu Thr
275 280 285

Leu Met Cys Ser Phe Gln Ile Leu Lys Pro Ala Asp Lys Asn Lys Gly
290 295 300

Lys Tyr Gly Gln Phe Ser Gly Leu Asn Pro Gly Gly Arg Pro Ile Thr
305 310 315 320

Pro Pro Arg Asn Ser Ala Lys Ala Lys Lys
325 330

<210> 33
<211> 747
<212> DNA
<213> Murinae gen. sp.

<220>
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075155 earlier 78063.txt

<222> (298)..(298)

<223> n is a, c, g, or t

<400> 33

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<210> 34

<211> 2021

<212> DNA

<213> Murinae gen. sp.

<400> 34

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075155 earlier 78063.txt

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<210> 35
 <211> 709
 <212> PRT
 <213> Murinae gen. sp.

<400> 35

Met Glu Arg Ser Pro Phe Leu Leu Ala Cys Ile Leu Leu Pro Leu Val
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Arg Gly His Ser Leu Phe Thr Cys Glu Pro Ile Thr Val Pro Arg Cys
 20 25 30

Met Lys Met Thr Tyr Asn Met Thr Phe Phe Pro Asn Leu Met Gly His
 35 40 45

Tyr Asp Gln Gly Ile Ala Ala Val Glu Met Gly His Phe Leu His Leu
 Page 36

50

55

60

Ala Asn Leu Glu Cys Ser Pro Asn Ile Glu Met Phe Leu Cys Gln Ala
65 70 75 80

Phe Ile Pro Thr Cys Thr Glu Gln Ile His Val Val Leu Pro Cys Arg
85 90 95

Lys Leu Cys Glu Lys Ile Val Ser Asp Cys Lys Lys Leu Met Asp Thr
100 105 110

Phe Gly Ile Arg Trp Pro Glu Glu Leu Glu Cys Asn Arg Leu Pro His
115 120 125

Cys Asp Asp Thr Val Pro Val Thr Ser His Pro His Thr Glu Leu Ser
130 135 140

Gly Pro Gln Lys Lys Ser Asp Gln Val Pro Arg Asp Ile Gly Phe Trp
145 150 155 160

Cys Pro Lys His Leu Arg Thr Ser Gly Asp Gln Gly Tyr Arg Phe Leu
165 170 175

Gly Ile Glu Gln Cys Ala Pro Pro Cys Pro Asn Met Tyr Phe Lys Ser
180 185 190

Asp Glu Leu Asp Phe Ala Lys Ser Phe Ile Gly Ile Val Ser Ile Phe
195 200 205

Cys Leu Cys Ala Thr Leu Phe Thr Phe Leu Thr Phe Leu Ile Asp Val
210 215 220

Arg Arg Phe Arg Tyr Pro Glu Arg Pro Ile Ile Tyr Tyr Ser Val Cys
225 230 235 240

Tyr Ser Ile Val Ser Leu Met Tyr Phe Val Gly Phe Leu Leu Gly Asn
245 250 255

Ser Thr Ala Cys Asn Lys Ala Asp Glu Lys Leu Glu Leu Gly Asp Thr
260 265 270

Val Val Leu Gly Ser Lys Asn Lys Ala Cys Ser Val Val Phe Met Phe
275 280 285

Leu Tyr Phe Phe Thr Met Ala Gly Thr Val Trp Trp Val Ile Leu Thr
290 295 300

Ile Thr Trp Phe Leu Ala Ala Gly Arg Lys Trp Ser Cys Glu Ala Ile
 305 310 315 320

Glu Gln Lys Ala Val Trp Phe His Ala Val Ala Trp Gly Ala Pro Gly
 325 330 335

Phe Leu Thr Val Met Leu Leu Ala Met Asn Lys Val Glu Gly Asp Asn
 340 345 350

Ile Ser Gly Val Cys Phe Val Gly Leu Tyr Asp Leu Asp Ala Ser Arg
 355 360 365

Tyr Phe Val Leu Leu Pro Leu Cys Leu Cys Val Phe Val Gly Leu Ser
 370 375 380

Leu Leu Leu Ala Gly Ile Ile Ser Leu Asn His Val Arg Gln Val Ile
 385 390 395 400

Gln His Asp Gly Arg Asn Gln Glu Lys Leu Lys Lys Phe Met Ile Arg
 405 410 415

Ile Gly Val Phe Ser Gly Leu Tyr Leu Val Pro Leu Val Thr Leu Leu
 420 425 430

Gly Cys Tyr Val Tyr Glu Leu Val Asn Arg Ile Thr Trp Glu Met Thr
 435 440 445

Trp Phe Ser Asp His Cys His Gln Tyr Arg Ile Pro Cys Pro Tyr Gln
 450 455 460

Ala Asn Pro Lys Ala Arg Pro Glu Leu Ala Leu Phe Met Ile Lys Tyr
 465 470 475 480

Leu Met Thr Leu Ile Val Gly Ile Ser Ala Val Phe Trp Val Gly Ser
 485 490 495

Lys Lys Thr Cys Thr Glu Trp Ala Gly Phe Phe Lys Arg Asn Arg Lys
 500 505 510

Arg Asp Pro Ile Ser Glu Ser Arg Arg Val Leu Gln Glu Ser Cys Glu
 515 520 525

Phe Phe Leu Lys His Asn Ser Lys Val Lys His Lys Lys Lys His Gly
 530 535 540

Ala Pro Gly Pro His Arg Leu Lys Val Ile Ser Lys Ser Met Gly Thr
 545 550 555 560

075155 earlier 78063.txt

Ser Thr Gly Ala Thr Thr Asn His Gly Thr Ser Ala Met Ala Ile Ala
565 570 575

Asp His Asp Tyr Leu Gly Gln Glu Thr Ser Thr Glu Val His Thr Ser
580 585 590

Pro Glu Ala Ser Val Lys Glu Gly Arg Ala Asp Arg Ala Asn Thr Pro
595 600 605

Ser Ala Lys Asp Arg Asp Cys Gly Glu Ser Ala Gly Pro Ser Ser Lys
610 615 620

Leu Ser Gly Asn Arg Asn Gly Arg Glu Ser Arg Ala Gly Gly Leu Lys
625 630 635 640

Glu Arg Ser Asn Gly Ser Glu Gly Ala Pro Ser Glu Gly Arg Val Ser
645 650 655

Pro Lys Ser Ser Val Pro Glu Thr Gly Leu Ile Asp Cys Ser Thr Ser
660 665 670

Gln Ala Ala Ser Ser Pro Glu Pro Thr Ser Leu Lys Gly Ser Thr Ser
675 680 685

Leu Pro Val His Ser Ala Ser Arg Ala Arg Lys Glu Gln Gly Ala Gly
690 695 700

Ser His Ser Asp Ala
705

<210> 36
<211> 2039
<212> DNA
<213> Homo sapiens

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cattatttcc ttaaatacatg ttcgacaagt catacaacat gatggccgga accaagaaaa 180
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gacacttctc ggatgttacg tctatgagca agtgaacagg attacctggg agataacttg 300
ggctctctgat cattgtcgtc agtaccatat cccatgtcct tatcaggcaa aagcaaaagc 360
tcgaccagaa ttggctttat ttatgataaa atacctgatg acattaattg ttggcatctc 420
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075155 earlier 78063.txt

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ccaaacctca	ccagaaacat	caatgagaga	ggtgaaagcg	gacggagcta	gcacccccag	780
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gcagggtccc	agttcttcag	aaccaagcag	cctcaaaggt	tccacatctc	tgcttgttca	1020
cccggtttca	ggagtgagaa	aagagcaggg	aggtggttgt	cattcagata	cttgaagaac	1080
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aagatgtact	atgctatttt	acttttttga	tataaaatca	agatatttct	ttgctgaagt	1440
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aacttttttg	aaatcctatt	caagtatttt	tatcatgcta	ttgtgatatt	ttagcacttt	1560
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ctcactgatc	cttctgcata	tttaaaataa	aatgtcctaa	agggttagta	gacaaaatgt	1860
tagtcttttg	tatattaggc	caagtgcaat	tgacttcctt	tttttaatgt	ttcatgacca	1920
cccattgatt	gtattataac	cacttacagt	tgcttatatt	ttttgtttta	acttttgttt	1980
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<210> 37

<211> 706

<212> PRT

<213> Homo sapiens

<400> 37

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151015

075155 earlier 78063.txt

Arg Gly His Ser Leu Phe Thr Cys Glu Pro Ile Thr Val Pro Arg Cys
20 25 30

Met Lys Met Ala Tyr Asn Met Thr Phe Phe Pro Asn Leu Met Gly His
35 40 45

Tyr Asp Gln Ser Ile Ala Ala Val Glu Met Glu His Phe Leu Pro Leu
50 55 60

Ala Asn Leu Glu Cys Ser Pro Asn Ile Glu Thr Phe Leu Cys Lys Ala
65 70 75 80

Phe Val Pro Thr Cys Ile Glu Gln Ile His Val Val Pro Pro Cys Arg
85 90 95

Lys Leu Cys Glu Lys Val Tyr Ser Asp Cys Lys Lys Leu Ile Asp Thr
100 105 110

Phe Gly Ile Arg Trp Pro Glu Glu Leu Glu Cys Asp Arg Leu Gln Tyr
115 120 125

Cys Asp Glu Thr Val Pro Val Thr Phe Asp Pro His Thr Glu Phe Leu
130 135 140

Gly Pro Gln Lys Lys Thr Glu Gln Val Gln Arg Asp Ile Gly Phe Trp
145 150 155 160

Cys Pro Arg His Leu Lys Thr Ser Gly Gly Gln Gly Tyr Lys Phe Leu
165 170 175

Gly Ile Asp Gln Cys Ala Pro Pro Cys Pro Asn Met Tyr Phe Lys Ser
180 185 190

Asp Glu Leu Glu Phe Ala Lys Ser Phe Ile Gly Thr Val Ser Ile Phe
195 200 205

Cys Leu Cys Ala Thr Leu Phe Thr Phe Leu Thr Phe Leu Ile Asp Val
210 215 220

Arg Arg Phe Arg Tyr Pro Glu Arg Pro Ile Ile Tyr Tyr Ser Val Cys
225 230 235 240

Tyr Ser Ile Val Ser Leu Met Tyr Phe Ile Gly Phe Leu Leu Gly Asp
245 250 255

Ser Thr Ala Cys Asn Lys Ala Asp Glu Lys Leu Glu Leu Gly Asp Thr
260 265 270

075155 earlier 78063.txt

Val Val Leu Gly Ser Gln Asn Lys Ala Cys Thr Val Leu Phe Met Leu
275 280 285

Leu Tyr Phe Phe Thr Met Ala Gly Thr Val Trp Trp Val Ile Leu Thr
290 295 300

Ile Thr Trp Phe Leu Ala Ala Gly Arg Lys Trp Ser Cys Glu Ala Ile
305 310 315 320

Glu Gln Lys Ala Val Trp Phe His Ala Val Ala Trp Gly Thr Pro Gly
325 330 335

Phe Leu Thr Val Met Leu Leu Ala Met Asn Lys Val Glu Gly Asp Asn
340 345 350

Ile Ser Gly Val Cys Phe Val Gly Leu Tyr Asp Leu Asp Ala Ser Arg
355 360 365

Tyr Phe Val Leu Leu Pro Leu Cys Leu Cys Val Phe Val Gly Leu Ser
370 375 380

Leu Leu Leu Ala Gly Ile Ile Ser Leu Asn His Val Arg Gln Val Ile
385 390 395 400

Gln His Asp Gly Arg Asn Gln Glu Lys Leu Lys Lys Phe Met Ile Arg
405 410 415

Ile Gly Val Phe Ser Gly Leu Tyr Leu Val Pro Leu Val Thr Leu Leu
420 425 430

Gly Cys Tyr Val Tyr Glu Gln Val Asn Arg Ile Thr Trp Glu Ile Thr
435 440 445

Trp Val Ser Asp His Cys Arg Gln Tyr His Ile Pro Cys Pro Tyr Gln
450 455 460

Ala Lys Ala Lys Ala Arg Pro Glu Leu Ala Leu Phe Met Ile Lys Tyr
465 470 475 480

Leu Met Thr Leu Ile Val Gly Ile Ser Ala Val Phe Trp Val Gly Ser
485 490 495

Lys Lys Thr Cys Thr Glu Trp Ala Gly Phe Phe Lys Arg Asn Arg Lys
500 505 510

Arg Asp Pro Ile Ser Glu Ser Arg Arg Val Leu Gln Glu Ser Cys Glu

515 075155 earlier 78063.txt 520 525

Phe Phe Leu Lys His Asn Ser Lys Val Lys His Lys Lys Lys His Tyr
530 535 540

Lys Pro Ser Ser His Lys Leu Lys Val Ile Ser Lys Ser Met Gly Thr
545 550 555 560

Ser Thr Gly Ala Thr Ala Asn His Gly Thr Ser Ala Val Ala Ile Thr
565 570 575

Ser His Asp Tyr Leu Gly Gln Glu Thr Leu Thr Glu Ile Gln Thr Ser
580 585 590

Pro Glu Thr Ser Met Arg Glu Val Lys Ala Asp Gly Ala Ser Thr Pro
595 600 605

Arg Leu Arg Glu Gln Asp Cys Gly Glu Pro Ala Ser Pro Ala Ala Ser
610 615 620

Ile Ser Arg Leu Ser Gly Glu Gln Val Asp Gly Lys Gly Gln Ala Gly
625 630 635 640

Ser Val Ser Glu Ser Ala Arg Ser Glu Gly Arg Ile Ser Pro Lys Ser
645 650 655

Asp Ile Thr Asp Thr Gly Leu Ala Gln Ser Asn Asn Leu Gln Val Pro
660 665 670

Ser Ser Ser Glu Pro Ser Ser Leu Lys Gly Ser Thr Ser Leu Leu Val
675 680 685

His Pro Val Ser Gly Val Arg Lys Glu Gln Gly Gly Gly Cys His Ser
690 695 700

Asp Thr
705

<210> 38
<211> 773
<212> DNA
<213> Murinae gen. sp.

<400> 38
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gttctttgcc cacaaggtgg agcatgaaag caaggcgcac aatgggagaa gcttccagag 180

075155 earlier 78063.txt

gaccgggact cttgcctttg agcgggtcta cactgccaac cagaactgcg tagatgcgta	240
ccccactttc cttgtggtac tctggactgc aggactactt tgcagccaag tccctgcagc	300
cttcgccgga ctgatgtacc tgtttgtgag gcaaaaatac tttgtcggct atctgggaga	360
gagaactcag agcaccctg gctacatctt cggcaagcgg atcatcctgt tcctgttcct	420
catgtccttc gccgggatac tcaaccatta cctcatcttc ttcttcggaa gcgactttga	480
gaactacatc agaacggtaa gcacgacgat ctccccgctg cttctcatcc cctgattgct	540
ggagacagag aaggacgctc accagatcaa tagagacgca tcataacgca acgccgcgaa	600
ggcttctgct cctcttcaag ctgtagatgc tgtcaatctt gctgccctcg gggctctgtg	660
gcatccgtta actttgcttt tccgggaaga aaaatgtctt gtgctaagct ccaccctcg	720
aatgcggcgg tgggccagga tttatgtcta catccagcct atacttctcc tgg	773

<210> 39
 <211> 852
 <212> DNA
 <213> Murinae gen. sp.

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gaatgtgttt ttgcccact atgtggagca tgaaagcaat gcgcataatg ggagaagctt	180
ccagaggacc gggactcttg cctttgagcg ggtctacact gccaaccaga actgcgtaga	240
tgcgtacccc actttccttg tggtagctctg gactgcagga ctactttgca gccaagtccc	300
tgccgccttc gccggactga tgtacctgtt tgtgaggcaa aaatactttg tcggctatct	360
gggagagaga actcagagca cccctggcta catcttcggc aagcggatca tcctgttcct	420
gttcctcatg tccttcgccg ggataactcaa ccattacctc atcttcttct tcggaagcga	480
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cgcgaaggct tctgctcctc ttcaagctgt agatgctgtc aatcttgctg ccctcggggc	660
tctgtggcat ccgttaactt tgcttttccg ggaagaaaaa tgtcttgtgc tagctccacc	720
cctcgaatgc ggcggtggcc caggatttat tgtctacatc cagcctatac ttctcctggc	780
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<210> 40
 <211> 161
 <212> PRT
 <213> Murinae gen. sp.

<400> 40

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20 25 30
Glu Ser Asn Ala His Asn Gly Arg Ser Phe Gln Arg Thr Gly Thr Leu
35 40 45
Ala Phe Glu Arg Val Tyr Thr Ala Asn Gln Asn Cys Val Asp Ala Tyr
50 55 60
Pro Thr Phe Leu Val Val Leu Trp Thr Ala Gly Leu Leu Cys Ser Gln
65 70 75 80
Val Pro Ala Ala Phe Ala Gly Leu Met Tyr Leu Phe Val Arg Gln Lys
85 90 95
Tyr Phe Val Gly Tyr Leu Gly Glu Arg Thr Gln Ser Thr Pro Gly Tyr
100 105 110
Ile Phe Gly Lys Arg Ile Ile Leu Phe Leu Phe Leu Met Ser Phe Ala
115 120 125
Gly Ile Leu Asn His Tyr Leu Ile Phe Phe Phe Gly Ser Asp Phe Glu
130 135 140
Asn Tyr Ile Arg Thr Val Ser Thr Thr Ile Ser Pro Leu Leu Leu Ile
145 150 155 160

Pro

<210> 41
<211> 873
<212> DNA
<213> Homo sapiens

<400> 41
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agcctgaagc aaacatggat caagaaactg taggcaatgt tgtcctgttg gccatcgtca 120
ccctcatcag cgtggtccag aatggattct ttgccataa agtggagcac gaaagcagga 180
cccagaatgg gaggagcttc cagaggaccg gaacacttgc ctttgagcgg gtctacactg 240
ccaaccagaa ctgtgtagat gcgtaccca ctttcctcgc tgtgctctgg tctgcggggc 300
tactttgcag ccaagttcct gctgcgtttg ctggactgat gtacttgttt gtgaggcaaa 360

075155 earlier 78063.txt

agtactttgt cggttaccta ggagagagaa cgcagagcac ccctggctac atatttggga 420
 aacgcatcat actcttcctg ttcctcatgt ccgttgctgg catattcaac tattacctca 480
 tcttcttttt cggaagtgac tttgaaaact acataaagac gatctccacc accatctccc 540
 ctctacttct cattccctaa ctctctgctg aatatgggggt tgggtgttctc atctaataca 600
 tactacaag tcatacataat tcagctcttg agagcattct gctcttcttt agatggctgt 660
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 gcattttgtt tgtttcttca cttatcctgt tctctgaaga tgttttgtga ccaggtttgt 840
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<210> 42
 <211> 161
 <212> PRT
 <213> Homo sapiens

<400> 42

Met Asp Gln Glu Thr Val Gly Asn Val Val Leu Leu Ala Ile Val Thr
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Leu Ile Ser Val Val Gln Asn Gly Phe Phe Ala His Lys Val Glu His
20 25 30

Glu Ser Arg Thr Gln Asn Gly Arg Ser Phe Gln Arg Thr Gly Thr Leu
35 40 45

Ala Phe Glu Arg Val Tyr Thr Ala Asn Gln Asn Cys Val Asp Ala Tyr
50 55 60

Pro Thr Phe Leu Ala Val Leu Trp Ser Ala Gly Leu Leu Cys Ser Gln
65 70 75 80

Val Pro Ala Ala Phe Ala Gly Leu Met Tyr Leu Phe Val Arg Gln Lys
85 90 95

Tyr Phe Val Gly Tyr Leu Gly Glu Arg Thr Gln Ser Thr Pro Gly Tyr
100 105 110

Ile Phe Gly Lys Arg Ile Ile Leu Phe Leu Phe Leu Met Ser Val Ala
115 120 125

Gly Ile Phe Asn Tyr Tyr Leu Ile Phe Phe Phe Gly Ser Asp Phe Glu
130 135 140

075155 earlier 78063.txt
 Asn Tyr Ile Lys Thr Ile Ser Thr Thr Ile Ser Pro Leu Leu Leu Ile
 145 150 155 160

Pro

<210> 43
 <211> 803
 <212> DNA
 <213> Murinae gen. sp.

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 tacggaacac atttcatggt tcctttgaag agttaagaga agaaagtatt tgtaagaaca 180
 ggaaaagaaa caaatacttt gcaaataaac tggctgctgc tgtgaccaca tctgaatagc 240
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<210> 44
 <211> 1849
 <212> DNA
 <213> Murinae gen. sp.

<400> 44
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 atcaatgtag aaatacaaag tttgagaata aaaagaagga agaagtaccc gaggacgacg 180
 ggcggacgga cgcacggcga gtgtttgtga ctgaagtaaa gctggtttgg accctggcgg 240
 ctgaagcaca agtttccacg cggactggtc tgggccgact tggaacagtt tttccttaca 300
 ctttcagctt tatgggttgg cttccttgac tgcattttct gtcagttaac taaactccag 360
 actcatggat tttctcgacc agaaaatcag actattttcc tgaataatct actagaaact 420

075155 earlier 78063.txt

tttacggaac acatttcatg tttcctttga agagttaaga gaagaaagta tttgtaagaa	480
caggaaaaga aacaaatact ttgcaaataa actggctgct gctgtgacca catctgaata	540
gcaaaggcga tcgatcaagc gctgcggaca aaaggcctcc tgtaagctgc actgcctgac	600
aatggtaagc tccaatggct cccagtgccc ttatgacgac tcctttaagt acactctgta	660
cgggtgcatg ttcagcatgg tcttcgtgct tgggctgata tccaactgtg ttgcgatata	720
cattttcatc tgtgccctca aagtgagaaa tgaaactaca acgtacatga ttaacctggc	780
aatgtcagat ttacttttcg tctttacttt gccatttcgg attttttact ttgcaacacg	840
gaattggcca tttggagatc tactctgtaa gatttcagta atgctgtttt acaccaatat	900
gtatggaagc attctgttct taacctgtat cagtgtagat cgatttctgg caattgtcta	960
cccatttaag tcaaagactt taagaacgaa acgaaatgca aagatcgttt gcattgctgt	1020
gtggttcaca gtgatgggag gaagtgcgcc tgcagttttc tttcagtcga cccactctca	1080
ggggaacaat acctcagaag cctgctttga gaactttcca gcggccacat ggaaaactta	1140
tctctccagg attgtgattt tcattgaaat agtgggcttt tttatccctc tcattttgaa	1200
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tgtaactgc tctgtggtgg cggcagtgag gaccatgtac ccgatcactc tctgcatcgc	1440
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ctcaataaaa atgaaaaact ggtcggttag aagaagtgc tccaggttct ctgaagttca	1560
gggcactgag aattttatcc aacacaacct acagacctta aaaaataaga tatttgataa	1620
tgaatctgca atataagctg cctgactaag ccactgggac tgctccgtgt tcaactgtga	1680
aaactgtgtt cttgggaact atctctccgg ctccaacaga aaatattttt aaaggaagtt	1740
tgtgtctgat gtgttaaaca ttaaaatata ttctattctt gtatgcacgc cattttactt	1800
tcttgaacca ctttaacgtg ttttttcctc attaaaaaaa aaaaactcc	1849

<210> 45
 <211> 316
 <212> PRT
 <213> Murinae gen. sp.

<400> 45

Asp	Asp	Ser	Phe	Lys	Tyr	Thr	Leu	Tyr	Gly	Cys	Met	Phe	Ser	Met	Val
1				5					10					15	

Phe	Val	Leu	Gly	Leu	Ile	Ser	Asn	Cys	Val	Ala	Ile	Tyr	Ile	Phe	Ile
			20					25					30		

075155 earlier 78063.txt

Cys Ala Leu Lys Val Arg Asn Glu Thr Thr Thr Tyr Met Ile Asn Leu
 35 40 45
 Ala Met Ser Asp Leu Leu Phe Val Phe Thr Leu Pro Phe Arg Ile Phe
 50 55 60
 Tyr Phe Ala Thr Arg Asn Trp Pro Phe Gly Asp Leu Leu Cys Lys Ile
 65 70 75 80
 Ser Val Met Leu Phe Tyr Thr Asn Met Tyr Gly Ser Ile Leu Phe Leu
 85 90 95
 Thr Cys Ile Ser Val Asp Arg Phe Leu Ala Ile Val Tyr Pro Phe Lys
 100 105 110
 Ser Lys Thr Leu Arg Thr Lys Arg Asn Ala Lys Ile Val Cys Ile Ala
 115 120 125
 Val Trp Phe Thr Val Met Gly Gly Ser Ala Pro Ala Val Phe Phe Gln
 130 135 140
 Ser Thr His Ser Gln Gly Asn Asn Thr Ser Glu Ala Cys Phe Glu Asn
 145 150 155 160
 Phe Pro Ala Ala Thr Trp Lys Thr Tyr Leu Ser Arg Ile Val Ile Phe
 165 170 175
 Ile Glu Ile Val Gly Phe Phe Ile Pro Leu Ile Leu Asn Val Thr Cys
 180 185 190
 Ser Ser Met Val Leu Arg Thr Leu Asn Lys Pro Val Thr Leu Ser Arg
 195 200 205
 Ser Lys Met Asn Lys Thr Lys Val Leu Lys Met Ile Phe Val His Leu
 210 215 220
 Val Ile Phe Cys Phe Cys Phe Val Pro Tyr Asn Ile Asn Leu Ile Leu
 225 230 235 240
 Tyr Ser Leu Met Arg Thr Gln Thr Phe Val Asn Cys Ser Val Val Ala
 245 250 255
 Ala Val Arg Thr Met Tyr Pro Ile Thr Leu Cys Ile Ala Val Ser Asn
 260 265 270
 Cys Cys Phe Asp Pro Ile Val Tyr Tyr Phe Thr Ser Asp Thr Ile Gln
 275 280 285

075155 earlier 78063.txt

Asn Ser Ile Lys Met Lys Asn Trp Ser Val Arg Arg Ser Asp Ser Arg
290 295 300

Phe Ser Glu Val Gln Gly Thr Glu Asn Phe Ile Gln
305 310 315

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<211> 1035
<212> DNA
<213> Homo sapiens

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attttcatct gcgtcctcaa agtccgaaat gaaactacaa cttacatgat taacttggca 180
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ccatttaagt caaagactct aagaaccaa agaaatgcaa agattgtttg cactggcgtg 420
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ctctcaagga ttgtaatttt catcgaaata gtgggatttt ttattcctct aattttaaat 600
gtaacttggt ctagtatggg gctaaaaact ttaaccaaac ctgttacatt aagtagaagc 660
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gggtgcagaga attttattca gcataaccta cagaccttaa aaagtaagat atttgacaat 1020
gaatctgctg cctga 1035

<210> 47
<211> 344
<212> PRT
<213> Homo sapiens

<400> 47

Met Val Ser Val Asn Ser Ser His Cys Phe Tyr Asn Asp Ser Phe Lys
1 5 10 15

075155 earlier 78063.txt

Tyr Thr Leu Tyr Gly Cys Met Phe Ser Met Val Phe Val Leu Gly Leu
20 25 30

Ile Ser Asn Cys Val Ala Ile Tyr Ile Phe Ile Cys Val Leu Lys Val
35 40 45

Arg Asn Glu Thr Thr Thr Tyr Met Ile Asn Leu Ala Met Ser Asp Leu
50 55 60

Leu Phe Val Phe Thr Leu Pro Phe Arg Ile Phe Tyr Phe Thr Thr Arg
65 70 75 80

Asn Trp Pro Phe Gly Asp Leu Leu Cys Lys Ile Ser Val Met Leu Phe
85 90 95

Tyr Thr Asn Met Tyr Gly Ser Ile Leu Phe Leu Thr Cys Ile Ser Val
100 105 110

Asp Arg Phe Leu Ala Ile Val Tyr Pro Phe Lys Ser Lys Thr Leu Arg
115 120 125

Thr Lys Arg Asn Ala Lys Ile Val Cys Thr Gly Val Trp Leu Thr Val
130 135 140

Ile Gly Gly Ser Ala Pro Ala Val Phe Val Gln Ser Thr His Ser Gln
145 150 155 160

Gly Asn Asn Ala Ser Glu Ala Cys Phe Glu Asn Phe Pro Glu Ala Thr
165 170 175

Trp Lys Thr Tyr Leu Ser Arg Ile Val Ile Phe Ile Glu Ile Val Gly
180 185 190

Phe Phe Ile Pro Leu Ile Leu Asn Val Thr Cys Ser Ser Met Val Leu
195 200 205

Lys Thr Leu Thr Lys Pro Val Thr Leu Ser Arg Ser Lys Ile Asn Lys
210 215 220

Thr Lys Val Leu Lys Met Ile Phe Val His Leu Ile Ile Phe Cys Phe
225 230 235 240

Cys Phe Val Pro Tyr Asn Ile Asn Leu Ile Leu Tyr Ser Leu Val Arg
245 250 255

Thr Gln Thr Phe Val Asn Cys Ser Val Val Ala Ala Val Arg Thr Met
260 265 270

075155 earlier 78063.txt

Tyr Pro Ile Thr Leu Cys Ile Ala Val Ser Asn Cys Cys Phe Asp Pro
275 280 285

Ile Val Tyr Tyr Phe Thr Ser Asp Thr Ile Gln Asn Ser Ile Lys Met
290 295 300

Lys Asn Trp Ser Val Arg Arg Ser Asp Phe Arg Phe Ser Glu Val His
305 310 315 320

Gly Ala Glu Asn Phe Ile Gln His Asn Leu Gln Thr Leu Lys Ser Lys
325 330 335

Ile Phe Asp Asn Glu Ser Ala Ala
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<210> 48
<211> 814
<212> DNA
<213> Murinae gen. sp.

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gagcctggct acctgtcttt accccttgaa ggac 814

<210> 49
<211> 1164
<212> DNA
<213> Murinae gen. sp.

<400> 49

075155 earlier 78063.txt

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<210> 50
<211> 388
<212> PRT
<213> Murinae gen. sp.

<400> 50

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Gly Thr Leu Lys Ser Cys Gly Ala Pro Asn Phe Arg Gln Val Arg Gly
20 25 30

Gly Leu Pro Val Phe Gly Met Gly Gln Pro Ser Leu Leu Gly Phe Arg
35 40 45

Arg Val Leu Gln Lys Leu Gln Thr Asp Gly Leu Lys Glu Cys Ile Ile
50 55 60

075155 earlier 78063.txt

Phe Cys Val Arg Glu Glu Pro Val Val Phe Leu Arg Ala Glu Glu Asp
65 70 75 80

Phe Val Ser Tyr Thr Pro Arg Asp Lys Glu Ser Leu His Glu Asn Leu
85 90 95

Arg Asp Pro Ser Pro Gly Val Lys Ala Glu Asn Leu Glu Leu Ala Ile
100 105 110

Gln Lys Glu Ile His Asp Phe Ala Gln Leu Arg Asp Asn Val Tyr His
115 120 125

Val Tyr His Asn Thr Glu Asp Leu Arg Gly Glu Pro His Thr Val Ala
130 135 140

Ile Arg Gly Glu Asp Gly Val Cys Val Thr Glu Glu Val Phe Lys Arg
145 150 155 160

Pro Leu Phe Leu Gln Pro Thr Tyr Arg Tyr His Arg Leu Pro Leu Pro
165 170 175

Glu Gln Gly Ala Pro Leu Glu Ala Gln Phe Asp Ala Phe Val Ser Val
180 185 190

Leu Arg Glu Thr Pro Ser Leu Leu Pro Leu Arg Asp Asn His Gly Pro
195 200 205

Leu Pro Ala Leu Leu Phe Ser Cys Gln Ser Gly Val Gly Arg Thr Asn
210 215 220

Leu Gly Met Val Leu Gly Thr Leu Val Met Phe His His Ser Arg Thr
225 230 235 240

Thr Ser Gln Leu Glu Ala Ala Ser Pro Leu Ala Lys Pro Leu Pro Met
245 250 255

Glu Gln Phe Gln Val Ile Gln Gly Phe Ile Cys Lys Val Pro Gln Gly
260 265 270

Lys Lys Met Val Glu Glu Val Asp Arg Ala Ile Ser Ala Cys Ala Glu
275 280 285

Leu His Asp Leu Lys Glu Glu Val Leu Lys Asn Gln Arg Arg Leu Glu
290 295 300

Ser Phe Arg Pro Glu Ser Arg Gly Gln Glu Cys Gly Ser Gln Gln Ala
305 310 315 320

075155 earlier 78063.txt

Val Gln Gln Arg Ala Leu Trp Ser Leu Glu Leu Tyr Phe Tyr Leu Leu
325 330 335

Leu Phe Asn Tyr Tyr Leu His Glu Gln Tyr Pro Leu Ala Phe Ala Leu
340 345 350

Ser Phe Ser Arg Trp Leu Cys Thr His Pro Glu Leu Tyr Arg Leu Leu
355 360 365

Val Glu Leu Asn Ser Val Gly Pro Leu Val Pro Gly Asp Leu Ile Ala
370 375 380

Lys Gly Ser Leu
385

<210> 51
<211> 4303
<212> DNA
<213> Homo sapiens

<400> 51
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075155 earlier 78063.txt

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075155 earlier 78063.txt

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<210> 52
<211> 861
<212> PRT
<213> Homo sapiens

<400> 52

Gly Cys Trp Gln Thr Met Gly Thr Thr Ala Ser Thr Ala Gln Gln Thr
1 5 10 15

Val Ser Ala Gly Thr Pro Phe Glu Gly Leu Gln Gly Ser Gly Thr Met
20 25 30

Asp Ser Arg His Ser Val Ser Ile His Ser Phe Gln Ser Thr Ser Leu
Page 57

35

075155 earlier 78063.txt
40 45

His Asn Ser Lys Ala Lys Ser Ile Ile Pro Asn Lys Val Ala Pro Val
50 55 60

Val Ile Thr Tyr Asn Cys Lys Glu Glu Phe Gln Ile His Asp Glu Leu
65 70 75 80

Leu Lys Ala His Tyr Thr Leu Gly Arg Leu Ser Asp Asn Thr Pro Glu
85 90 95

His Tyr Leu Val Gln Gly Arg Tyr Phe Leu Val Arg Asp Val Thr Glu
100 105 110

Lys Met Asp Val Leu Gly Thr Val Gly Ser Cys Gly Ala Pro Asn Phe
115 120 125

Arg Gln Val Gln Gly Gly Leu Thr Val Phe Gly Met Gly Gln Pro Ser
130 135 140

Leu Ser Gly Phe Arg Arg Val Leu Gln Lys Leu Gln Lys Asp Gly His
145 150 155 160

Arg Glu Cys Val Ile Phe Cys Val Arg Glu Glu Pro Val Leu Phe Leu
165 170 175

Arg Ala Asp Glu Asp Phe Val Ser Tyr Thr Pro Arg Asp Lys Gln Asn
180 185 190

Leu His Glu Asn Leu Gln Gly Leu Gly Pro Gly Val Arg Val Glu Ser
195 200 205

Leu Glu Leu Ala Ile Arg Lys Glu Ile His Asp Phe Ala Gln Leu Ser
210 215 220

Glu Asn Thr Tyr His Val Tyr His Asn Thr Glu Asp Leu Trp Gly Glu
225 230 235 240

Pro His Ala Val Ala Ile His Gly Glu Asp Asp Leu His Val Thr Glu
245 250 255

Glu Val Tyr Lys Arg Pro Leu Phe Leu Gln Pro Thr Tyr Arg Tyr His
260 265 270

Arg Leu Pro Leu Pro Glu Gln Gly Ser Pro Leu Glu Ala Gln Leu Asp
275 280 285

075155 earlier 78063.txt

Ala Phe Val Ser Val Leu Arg Glu Thr Pro Ser Leu Leu Gln Leu Arg
290 295 300

Asp Ala His Gly Pro Pro Pro Ala Leu Val Phe Ser Cys Gln Met Gly
305 310 315 320

Val Gly Arg Thr Asn Leu Gly Met Val Leu Gly Thr Leu Ile Leu Leu
325 330 335

His Arg Ser Gly Thr Thr Ser Gln Pro Glu Ala Ala Pro Thr Gln Ala
340 345 350

Lys Pro Leu Pro Met Glu Gln Phe Gln Val Ile Gln Ser Phe Leu Arg
355 360 365

Met Val Pro Gln Gly Arg Arg Met Val Glu Glu Val Asp Arg Ala Ile
370 375 380

Thr Ala Cys Ala Glu Leu His Asp Leu Lys Glu Val Val Leu Glu Asn
385 390 395 400

Gln Lys Lys Leu Glu Gly Ile Arg Pro Glu Ser Pro Ala Gln Gly Ser
405 410 415

Gly Ser Arg His Ser Val Trp Gln Arg Ala Leu Trp Ser Leu Glu Arg
420 425 430

Tyr Phe Tyr Leu Ile Leu Phe Asn Tyr Tyr Leu His Glu Gln Tyr Pro
435 440 445

Leu Ala Phe Ala Leu Ser Phe Ser Arg Trp Leu Cys Ala His Pro Glu
450 455 460

Leu Tyr Arg Leu Pro Val Thr Leu Ser Ser Ala Gly Pro Val Ala Pro
465 470 475 480

Arg Asp Leu Ile Ala Arg Gly Ser Leu Arg Glu Asp Asp Leu Val Ser
485 490 495

Pro Asp Ala Leu Ser Thr Val Arg Glu Met Asp Val Ala Asn Phe Arg
500 505 510

Arg Val Pro Arg Met Pro Ile Tyr Gly Thr Ala Gln Pro Ser Ala Lys
515 520 525

Ala Leu Gly Ser Ile Leu Ala Tyr Leu Thr Asp Ala Lys Arg Arg Leu
530 535 540

075155 earlier 78063.txt

Arg Lys Val Val Trp Val Ser Leu Arg Glu Glu Ala Val Leu Glu Cys
545 550 555 560

Asp Gly His Thr Tyr Ser Leu Arg Trp Pro Gly Pro Pro Val Ala Pro
565 570 575

Asp Gln Leu Glu Thr Leu Glu Ala Gln Leu Lys Ala His Leu Ser Glu
580 585 590

Pro Pro Pro Gly Lys Glu Gly Pro Leu Thr Tyr Arg Phe Gln Thr Cys
595 600 605

Leu Thr Met Gln Glu Val Phe Ser Gln His Arg Arg Ala Cys Pro Gly
610 615 620

Leu Thr Tyr His Arg Ile Pro Met Pro Asp Phe Cys Ala Pro Arg Glu
625 630 635 640

Glu Asp Phe Asp Gln Leu Leu Glu Ala Leu Arg Ala Ala Leu Ser Lys
645 650 655

Asp Pro Gly Thr Gly Phe Val Phe Ser Cys Leu Ser Gly Gln Gly Arg
660 665 670

Thr Thr Thr Ala Met Val Val Ala Val Leu Ala Phe Trp His Ile Gln
675 680 685

Gly Phe Pro Glu Val Gly Glu Glu Glu Leu Val Ser Val Pro Asp Ala
690 695 700

Lys Phe Thr Lys Gly Glu Phe Gln Val Val Met Lys Val Val Gln Leu
705 710 715 720

Leu Pro Asp Gly His Arg Val Lys Lys Glu Val Asp Ala Ala Leu Asp
725 730 735

Thr Val Ser Glu Thr Met Thr Pro Met His Tyr His Leu Arg Glu Ile
740 745 750

Ile Ile Cys Thr Tyr Arg Gln Ala Lys Ala Ala Lys Glu Ala Gln Glu
755 760 765

Met Arg Arg Leu Gln Leu Arg Ser Leu Gln Tyr Leu Glu Arg Tyr Val
770 775 780

Cys Leu Ile Leu Phe Asn Ala Tyr Leu His Leu Glu Lys Ala Asp Ser
785 790 795 800

075155 earlier 78063.txt

Trp Gln Arg Pro Phe Ser Thr Trp Met Gln Glu Val Ala Ser Lys Ala
805 810 815

Gly Ile Tyr Glu Ile Leu Asn Glu Leu Gly Phe Pro Glu Leu Glu Ser
820 825 830

Gly Glu Asp Gln Pro Phe Ser Arg Leu Arg Tyr Arg Trp Gln Glu Gln
835 840 845

Ser Cys Ser Leu Glu Pro Ser Ala Pro Glu Asp Leu Leu
850 855 860

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